

FIG. 1 is a block diagram of a system for providing a buyer with a list of products and services available from a seller.

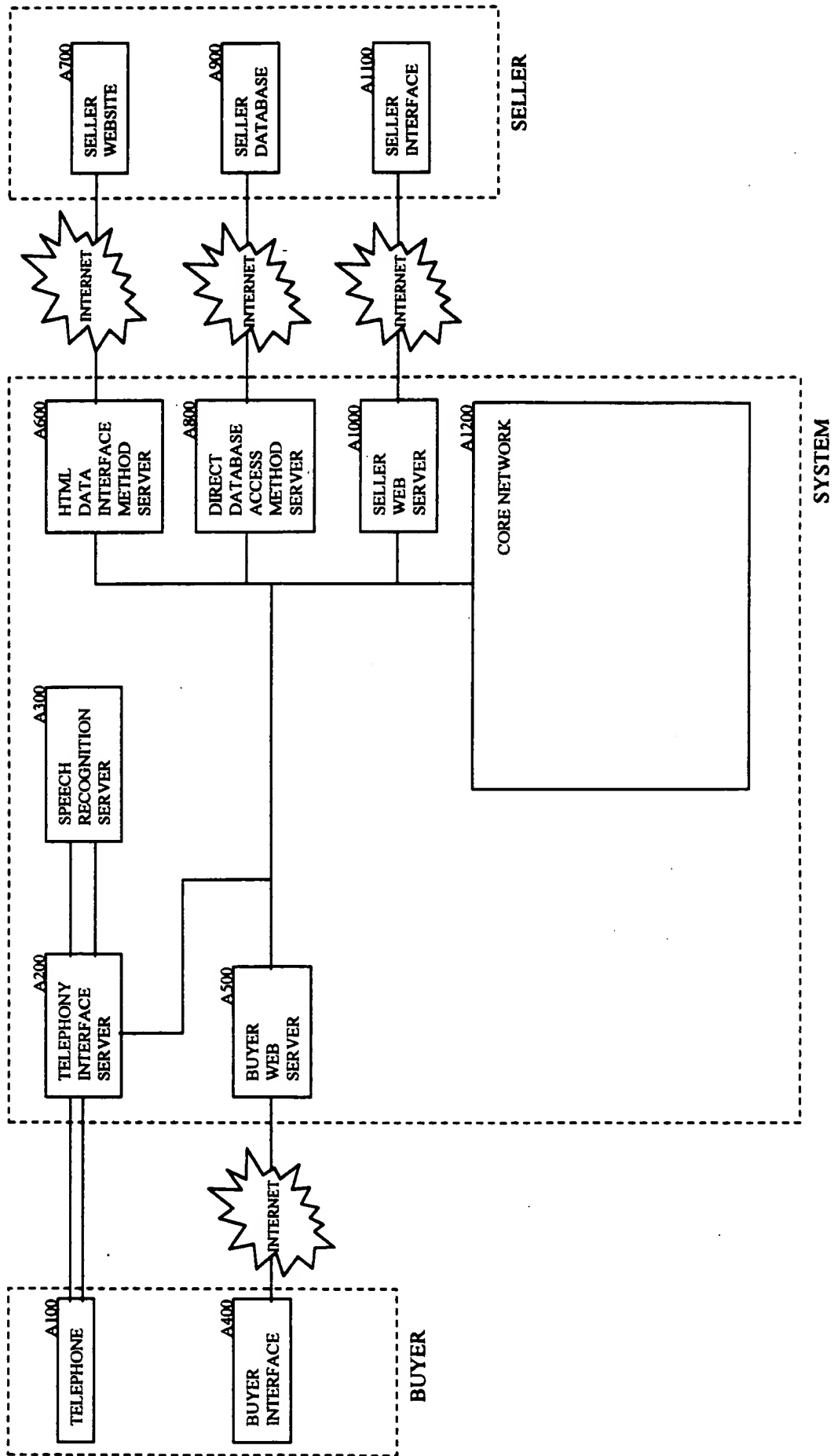


FIG. 1

FIG. 2 is a block diagram of a system architecture. The system is connected to a network (TO NETWORK) and includes a CORE NETWORK (A1200) which contains several servers and databases. The servers and databases are connected to the CORE NETWORK and the network.

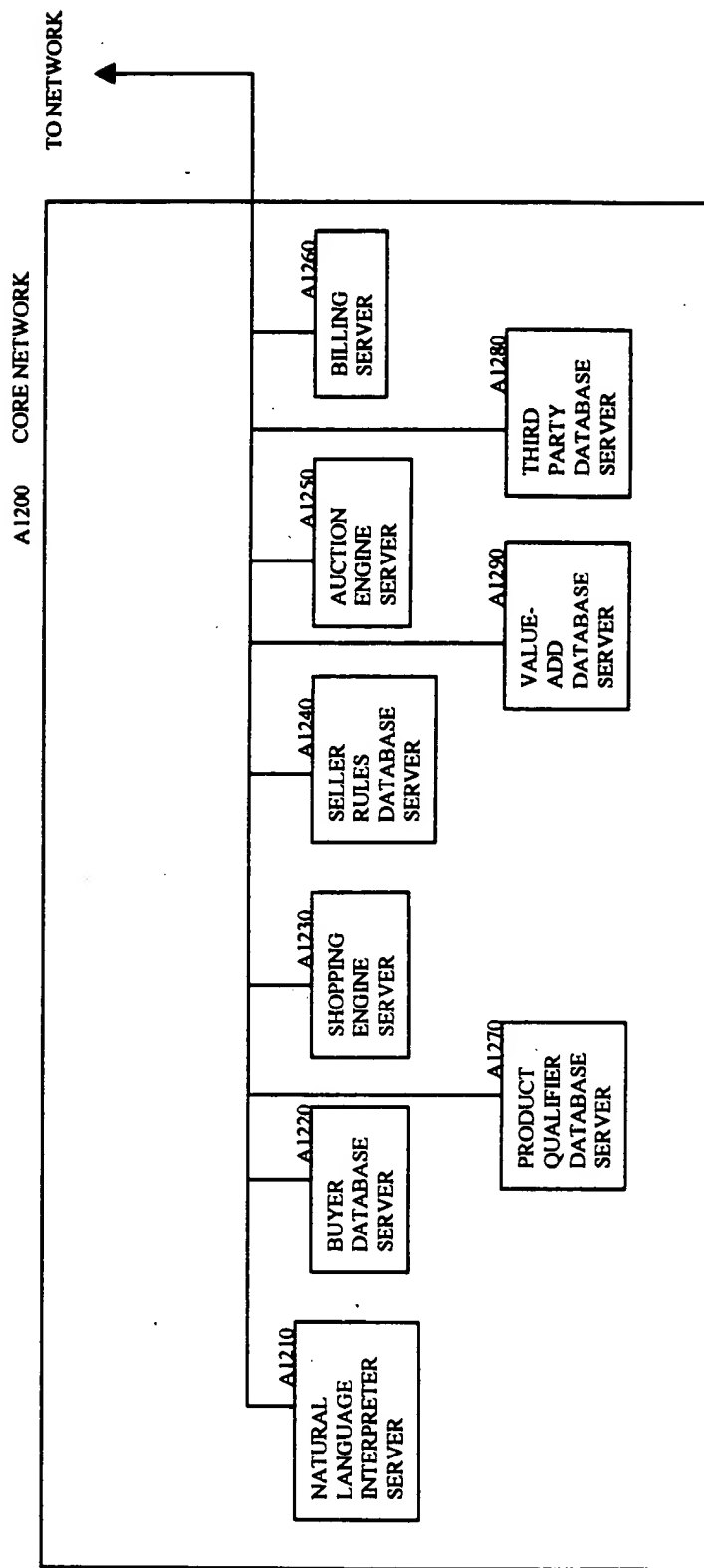


FIG. 2

FIG. 3 is a block diagram of a Telephony Interface Server (A200) according to one embodiment of the present invention. The server (A200) includes a POTS (A210) and an IP Telephone Network (A220) connected to a Telephone Network Interface (A210) and an IP Telephony Interface (A220), respectively. The server (A200) also includes a CPU (A290) connected to a RAM (A240), a ROM (A250), a Clock (A260), a Network Interface (A270), a Text to Speech Application (A270), an Operating System (A230), and a Data Storage Device (A280). The Data Storage Device (A280) includes a Grammar Database (A281), Voice Prompts (A282), a TTS Pronunciation Database (A283), and a Dynamic Grammar Pronunciation Database (A284). The server (A200) is connected to a Network (A200) and a Speech Recognition Server (A200).

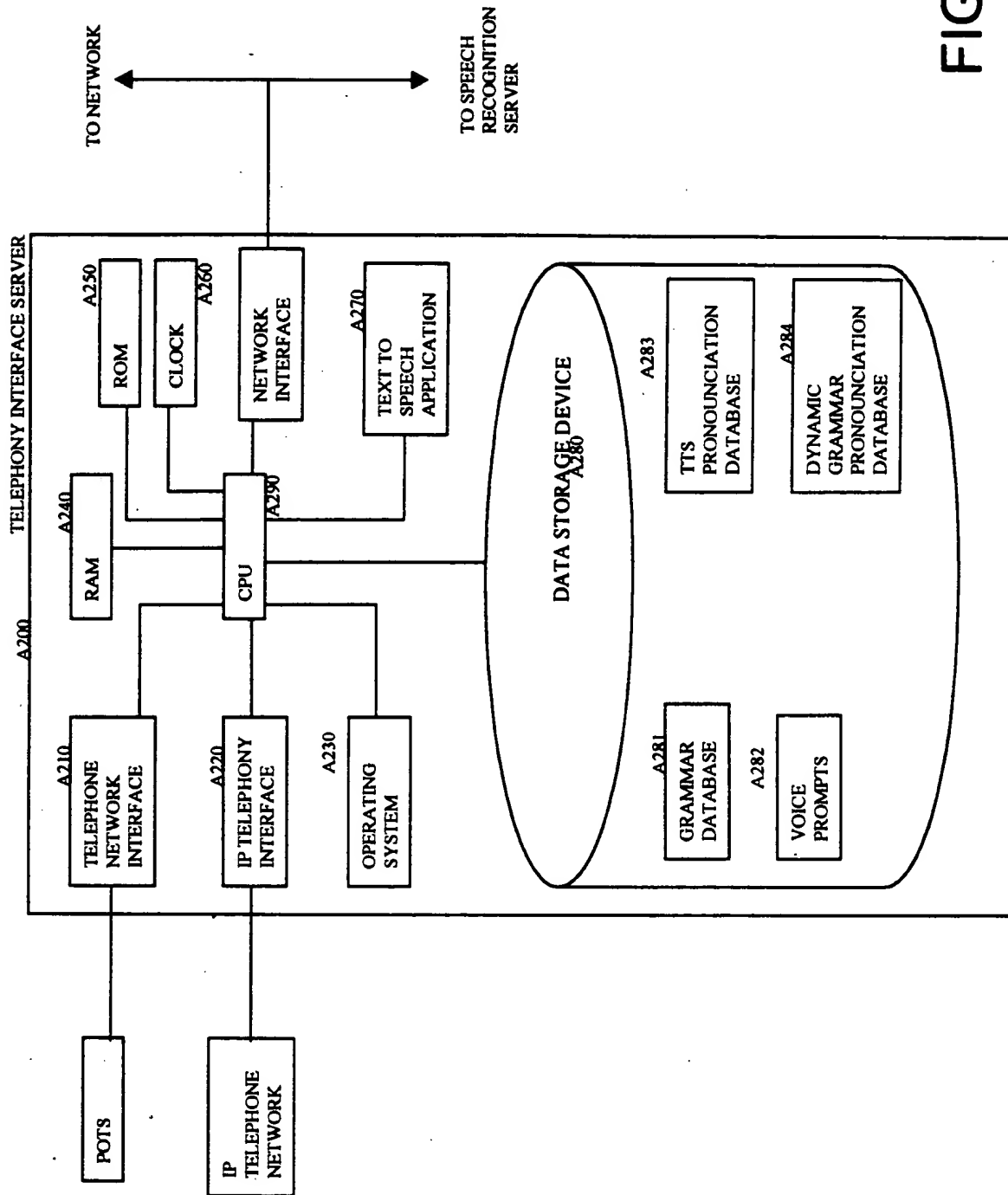


FIG. 3

FIG. 4 is a block diagram of a buyer interface system 400. The system 400 includes a video monitor 405, a video driver 410, a RAM 440, a CPU 430, a web browser 420, an operating system 430, a data storage device 480, a buyer ID information 481, a ROM 450, a clock 460, a comm port 470, and an input device 496. The video monitor 405 is connected to the video driver 410. The video driver 410 is connected to the CPU 430. The CPU 430 is connected to the RAM 440, the web browser 420, the operating system 430, and the data storage device 480. The data storage device 480 contains the buyer ID information 481. The CPU 430 is also connected to the ROM 450, the clock 460, and the comm port 470. The comm port 470 is connected to the input device 496. The input device 496 is connected to the CPU 430. The CPU 430 is also connected to the Internet.

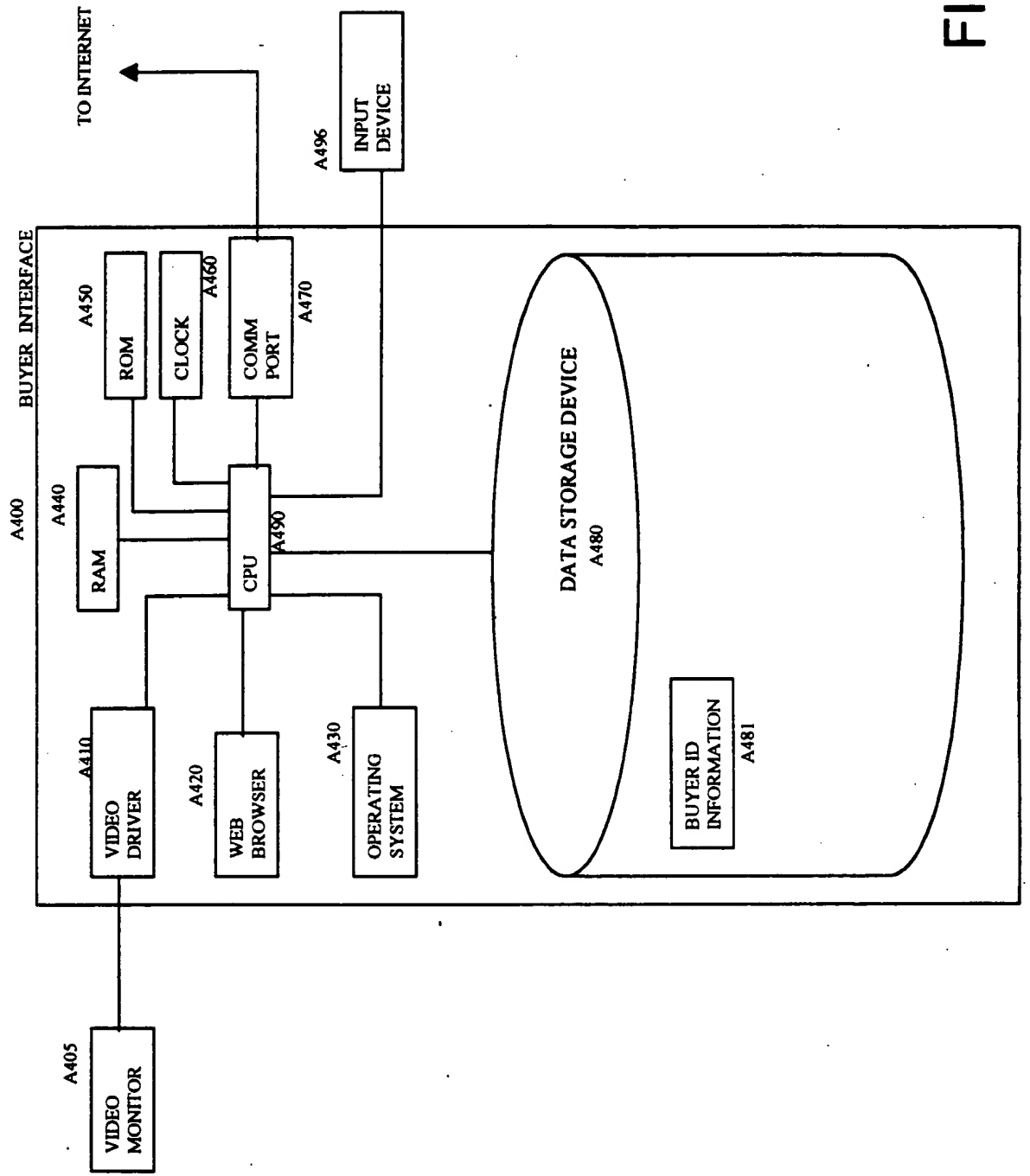


FIG. 4

FIG. 5 is a block diagram of a computer system 500. The system 500 includes a video monitor 510, a video driver 520, a RAM 530, a CPU 540, a ROM 550, a clock 560, a network interface 570, an input device 580, a data storage device 590, a web browser 5120, an operating system 5130, and a results database 5182. The video monitor 510 is connected to the video driver 520. The video driver 520 is connected to the RAM 530. The RAM 530 is connected to the CPU 540. The CPU 540 is connected to the ROM 550 and the clock 560. The CPU 540 is connected to the network interface 570. The network interface 570 is connected to the input device 580. The CPU 540 is connected to the data storage device 590. The data storage device 590 contains the web browser 5120, the operating system 5130, the results database 5182, and the seller ID information 5181. The network interface 570 is also connected to the Internet.

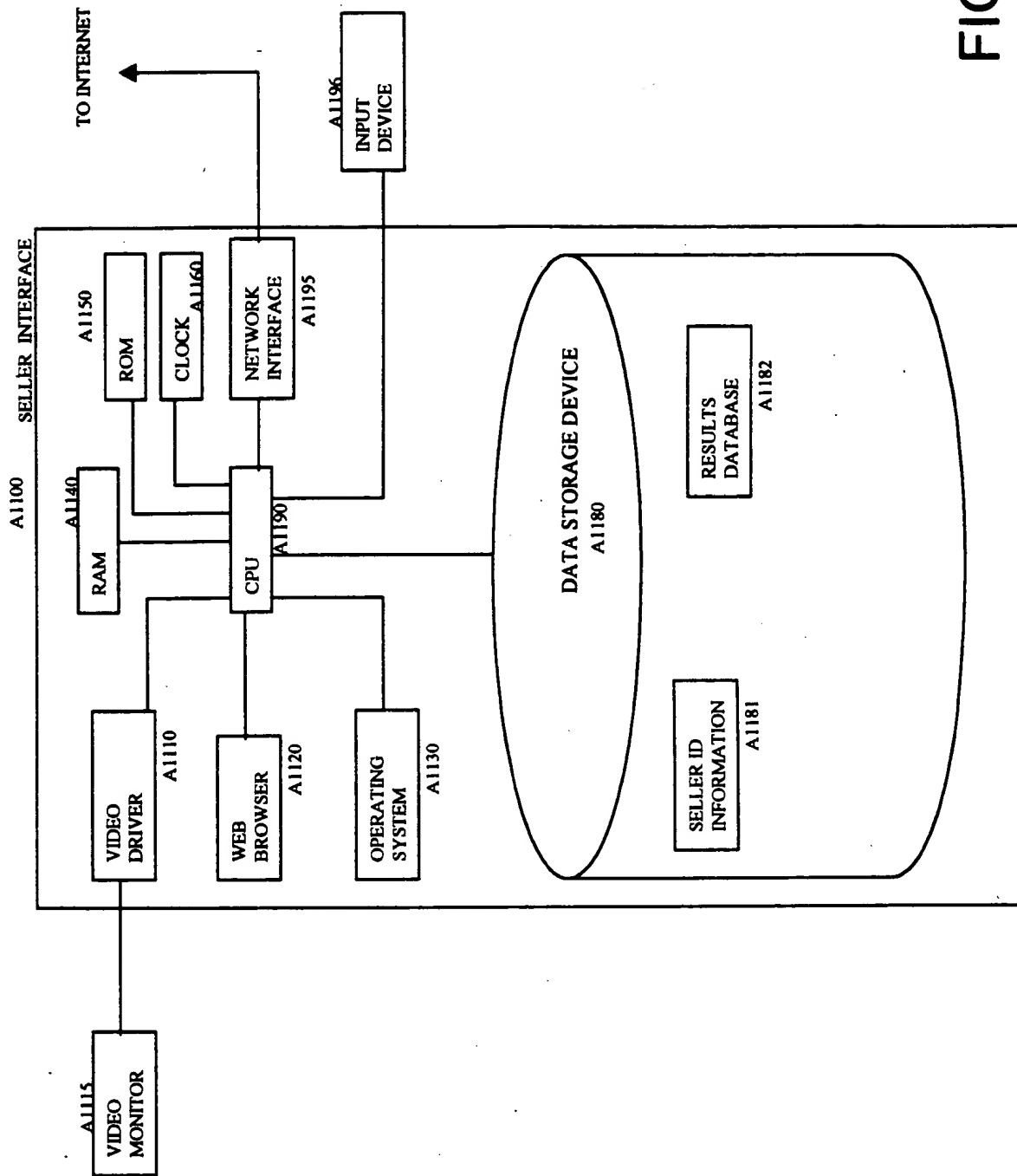


FIG. 5

FIG. 6 is a block diagram of a SELLER WEB SERVER A1000. The SELLER WEB SERVER A1000 includes a CPU A1090, a RAM A1040, a ROM A1050, a CLOCK A1060, a WEB SERVER APPLICATION A1010, an OPERATING SYSTEM A1030, a NETWORK INTERFACE A1094, a NETWORK INTERFACE A1095, a DATA STORAGE DEVICE A1080, a SELLER ID INFORMATION A1081, and a REPORTS DATABASE A1082. The CPU A1090 is connected to the RAM A1040, the ROM A1050, the CLOCK A1060, the WEB SERVER APPLICATION A1010, the OPERATING SYSTEM A1030, the NETWORK INTERFACE A1094, and the NETWORK INTERFACE A1095. The RAM A1040 is connected to the CPU A1090. The ROM A1050 is connected to the CPU A1090. The CLOCK A1060 is connected to the CPU A1090. The WEB SERVER APPLICATION A1010 is connected to the CPU A1090. The OPERATING SYSTEM A1030 is connected to the CPU A1090. The NETWORK INTERFACE A1094 is connected to the CPU A1090 and the NETWORK INTERFACE A1095. The NETWORK INTERFACE A1095 is connected to the NETWORK. The DATA STORAGE DEVICE A1080 is connected to the CPU A1090 and contains the SELLER ID INFORMATION A1081 and the REPORTS DATABASE A1082. The NETWORK INTERFACE A1094 is also connected to the TO INTERNET.

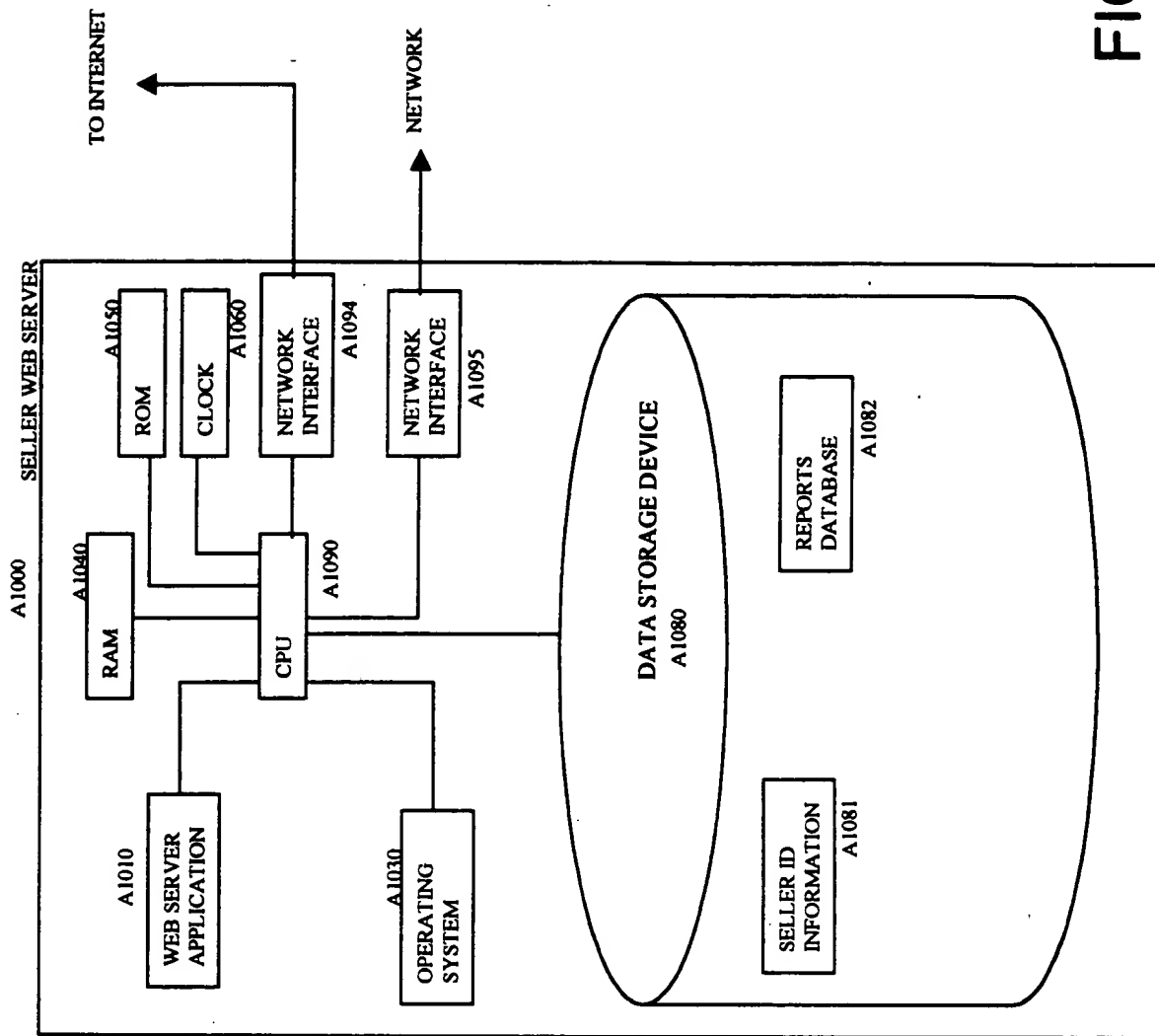


FIG. 6

FIG. 7 is a block diagram of a Buyer Web Server (A500) connected to the Internet. The server includes a CPU (A590) connected to RAM (A540), ROM (A550), a Clock (A560), a Network Interface (A570), a Web Server Application (A510), an Operating System (A530), and a Data Storage Device (A580). The Data Storage Device (A580) contains Buyer ID Information (A581). The Network Interface (A570) is connected to the Internet.

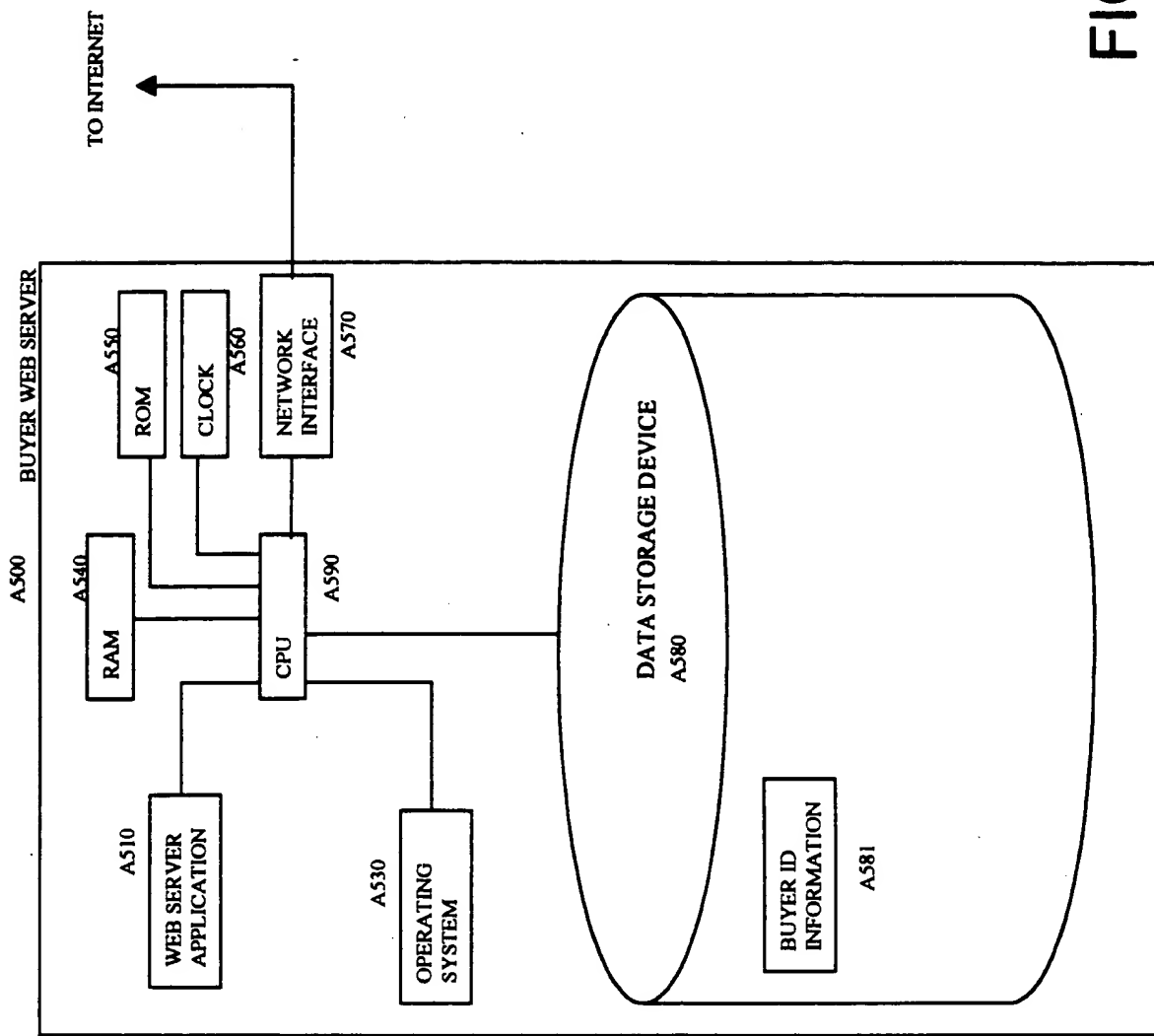


FIG. 7

FIG. 8 is a block diagram of a seller website system (A700) connected to the Internet. The system includes a CPU (A790) connected to RAM (A740), ROM (A750), a clock (A760), a network interface (A795), merchant applications (A770), a web server application (A710), an operating system (A730), and a data storage device (A780). The data storage device (A780) contains a buyer database (A781), a store management database (A782), and a product database (A783).

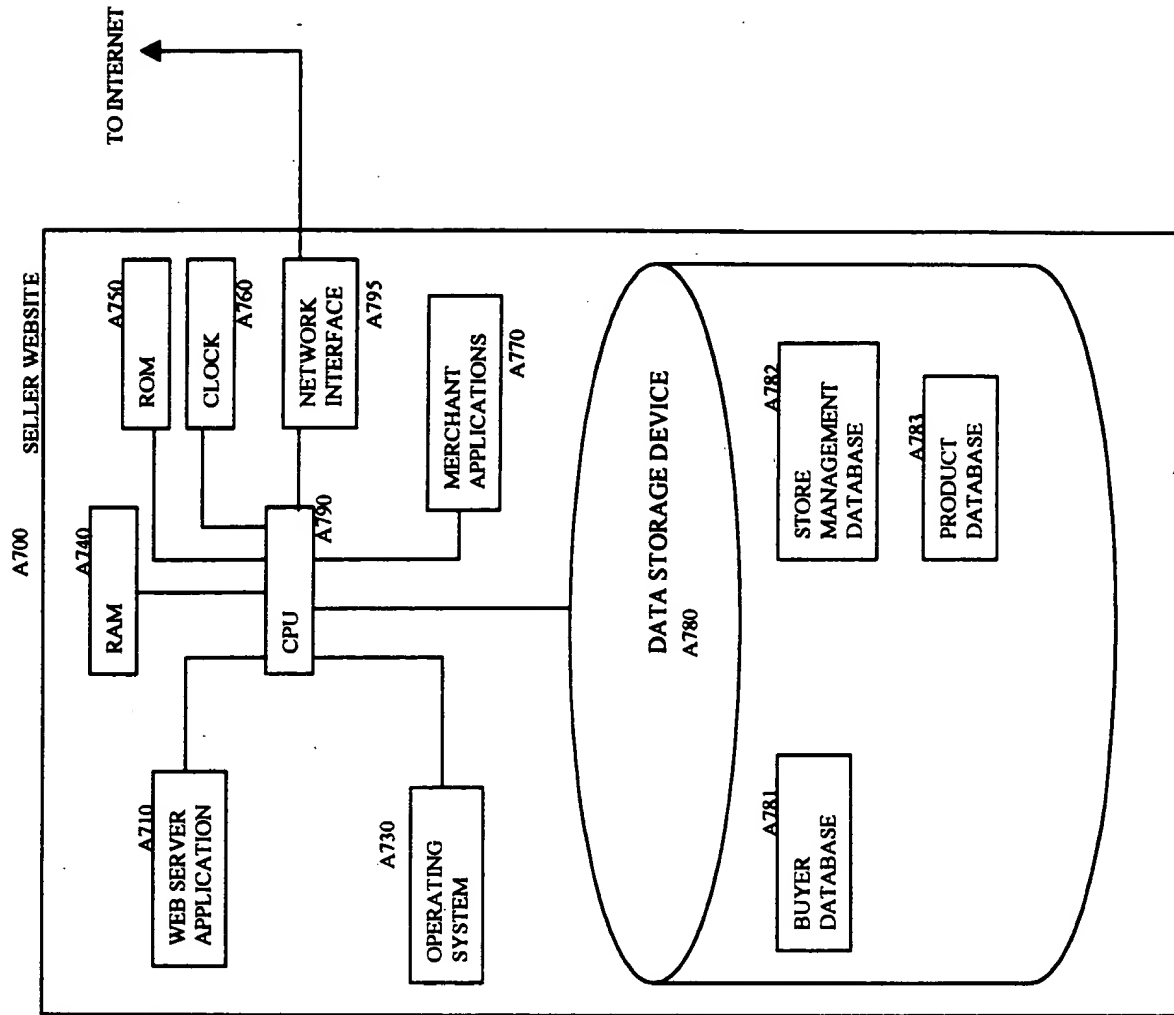


FIG. 8

FIG. 9 is a block diagram of a seller database system 900. The system 900 includes a web server application 910, a CPU 990, a RAM 940, a ROM 950, a clock 960, a network interface 995, merchant applications 970, an operating system 930, and a data storage device 980. The data storage device 980 includes a store management database 982 and a product database 983. The system 900 is connected to the Internet.

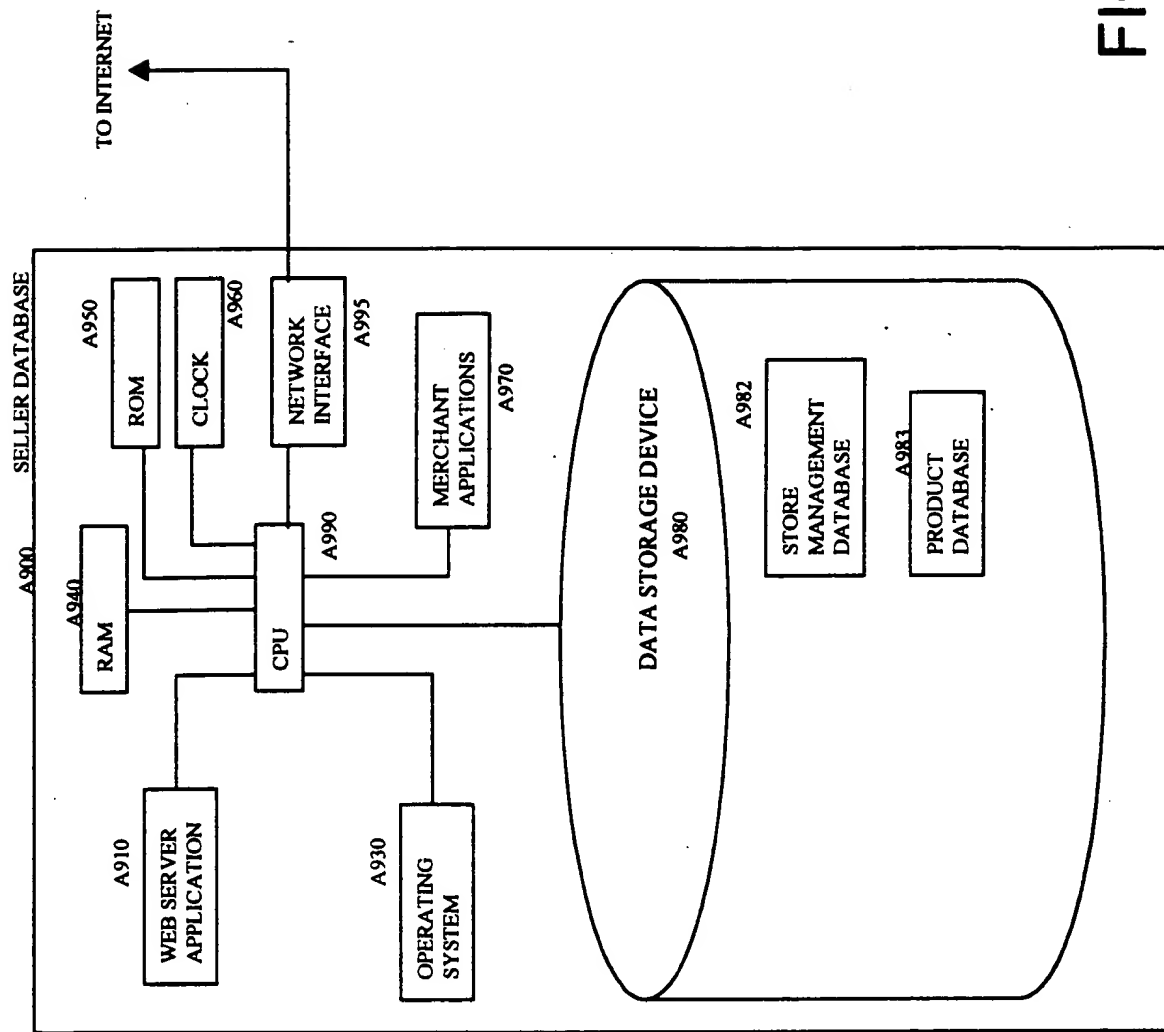


FIG. 9

FIG. 10 is a block diagram of a speech recognition server 1000. The server 1000 includes a CPU 1010, a RAM 1020, a ROM 1030, a clock 1040, a network interface 1050, an ASR application 1060, an operating system 1070, and a data storage device 1080. The data storage device 1080 includes ASR parameters 1081 and a phonetic database 1082. The server 1000 is connected to a telephony interface server 1090.

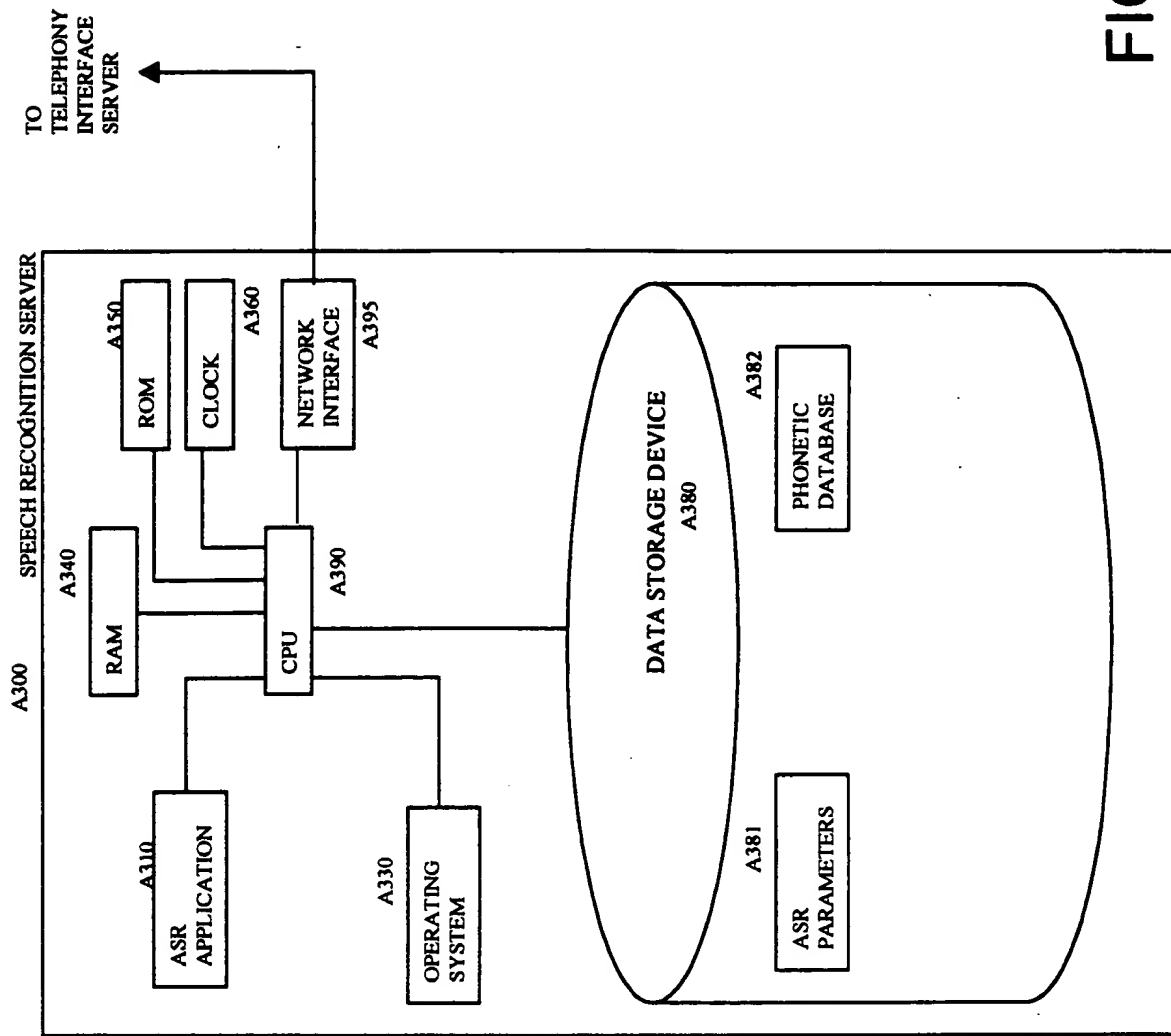


FIG. 10

FIG. 11 is a block diagram of an HTML data interface method server 1100. The server 1100 includes a CPU 1110, a RAM 1120, a ROM 1130, a clock 1140, a network interface 1150, an HTML parser application 1160, an operating system 1170, a data storage device 1180, a seller URL database 1190, and an HTML parsing database 1200. The CPU 1110 is connected to the RAM 1120, the ROM 1130, the clock 1140, the network interface 1150, the HTML parser application 1160, and the operating system 1170. The RAM 1120 is connected to the CPU 1110. The ROM 1130 is connected to the CPU 1110. The clock 1140 is connected to the CPU 1110. The network interface 1150 is connected to the CPU 1110 and to a network 1210. The HTML parser application 1160 is connected to the CPU 1110. The operating system 1170 is connected to the CPU 1110. The data storage device 1180 is connected to the CPU 1110 and contains the seller URL database 1190 and the HTML parsing database 1200. The network interface 1150 is also connected to the Internet 1220.

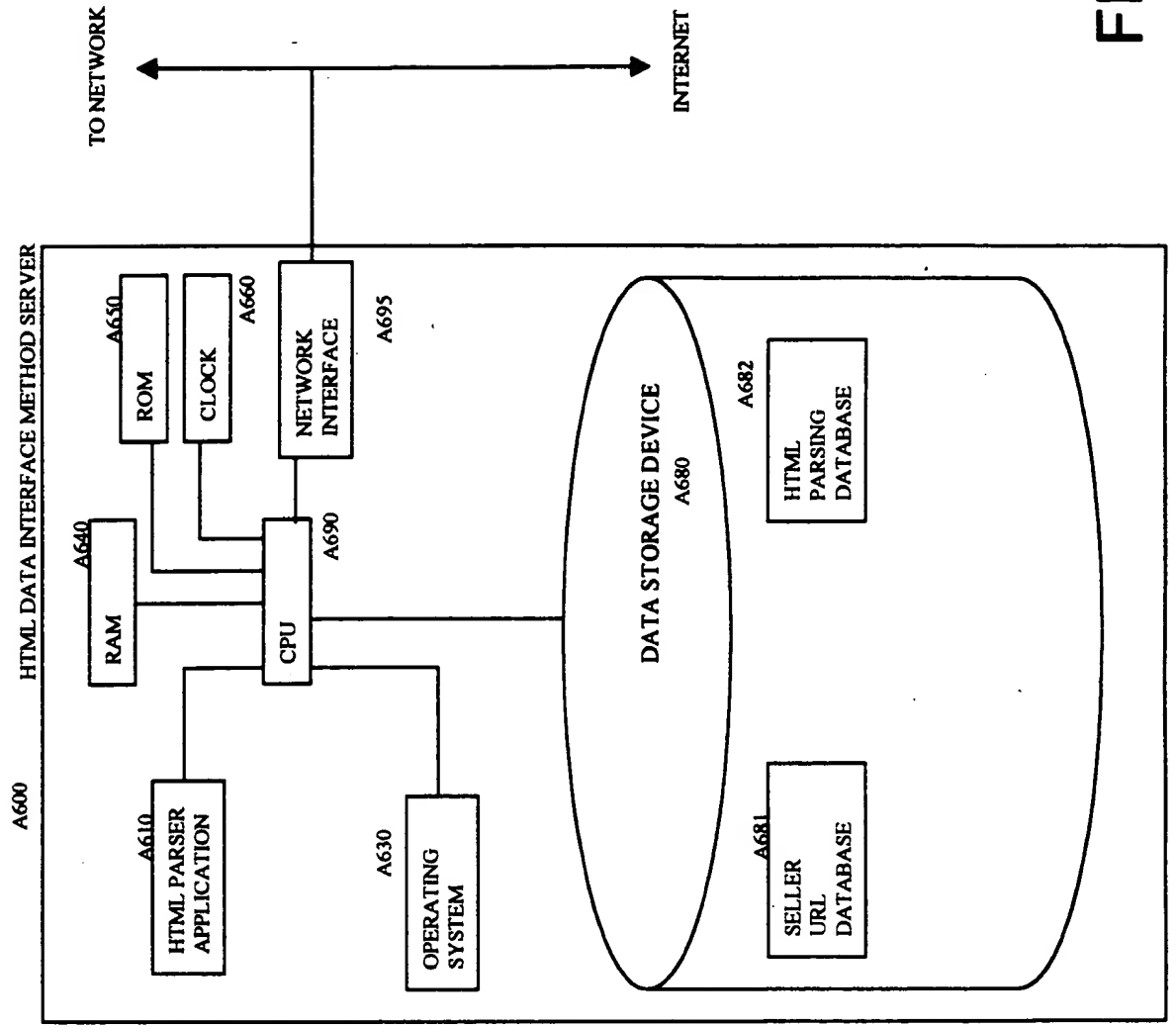


FIG. 11

FIG. 12 is a block diagram of a Natural Language Interpreter Server (NLIS) system. The system includes a central processing unit (CPU) connected to a random access memory (RAM), a read-only memory (ROM), a clock, and a network interface. The CPU is also connected to an operating system and a data storage device. The data storage device contains several databases: Morphology Database, Parsing Database, Disambiguation Database, Discourse Structure Database, Semantics Database, and Word Dictionary Database. The system is connected to a network.

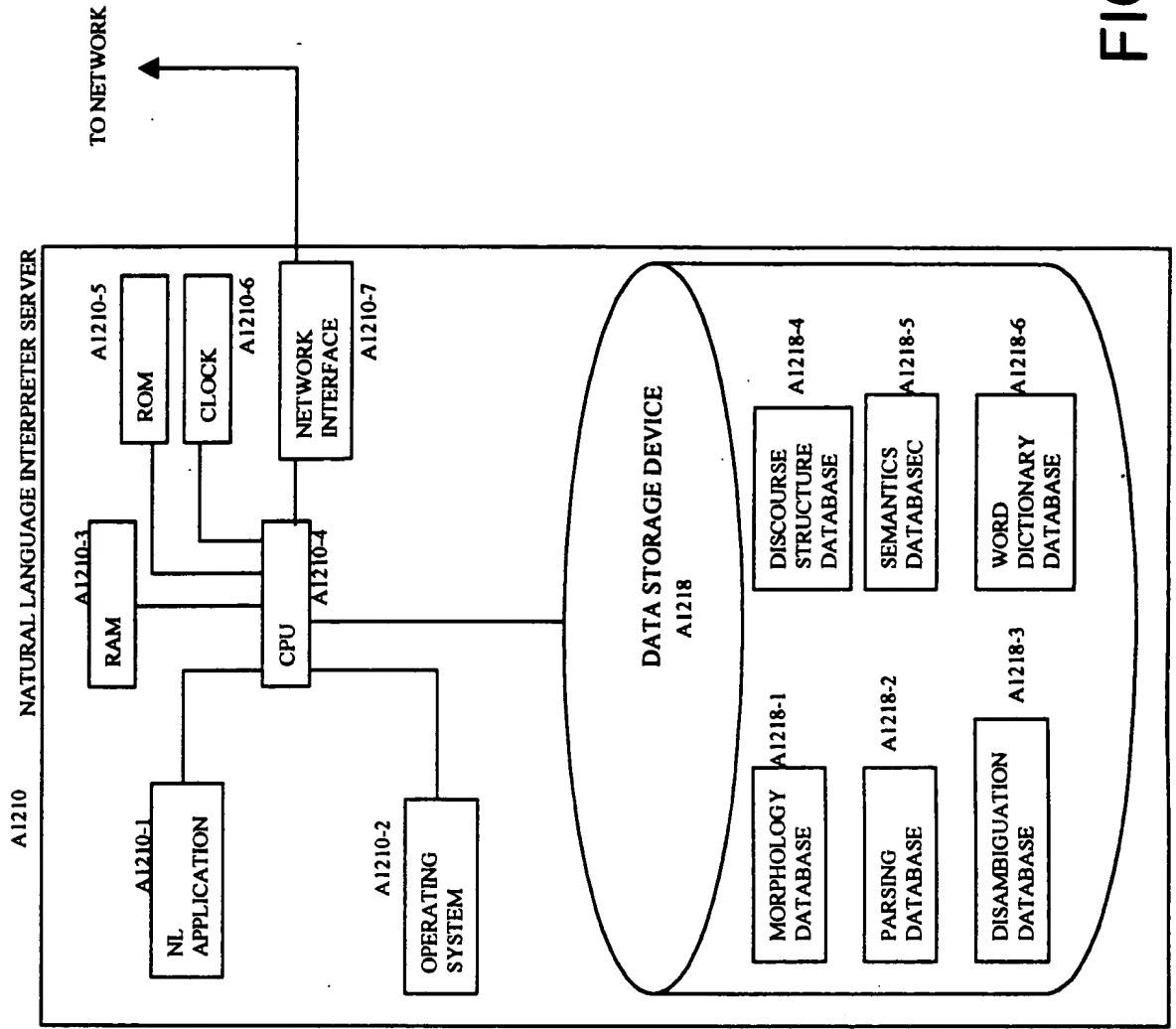


FIG. 12

FIG. 13 is a block diagram of a shopping engine server 1300. The server 1300 includes a CPU 1304, a RAM 1303, a ROM 1305, a clock 1306, a network interface 1307, a shopping engine application 1301, an operating system 1302, a data storage device 1308, a seller database 1309, and a product database 1310. The CPU 1304 is connected to the RAM 1303, the ROM 1305, the clock 1306, the network interface 1307, the shopping engine application 1301, the operating system 1302, and the data storage device 1308. The data storage device 1308 is connected to the seller database 1309 and the product database 1310. The network interface 1307 is connected to a network 1311.

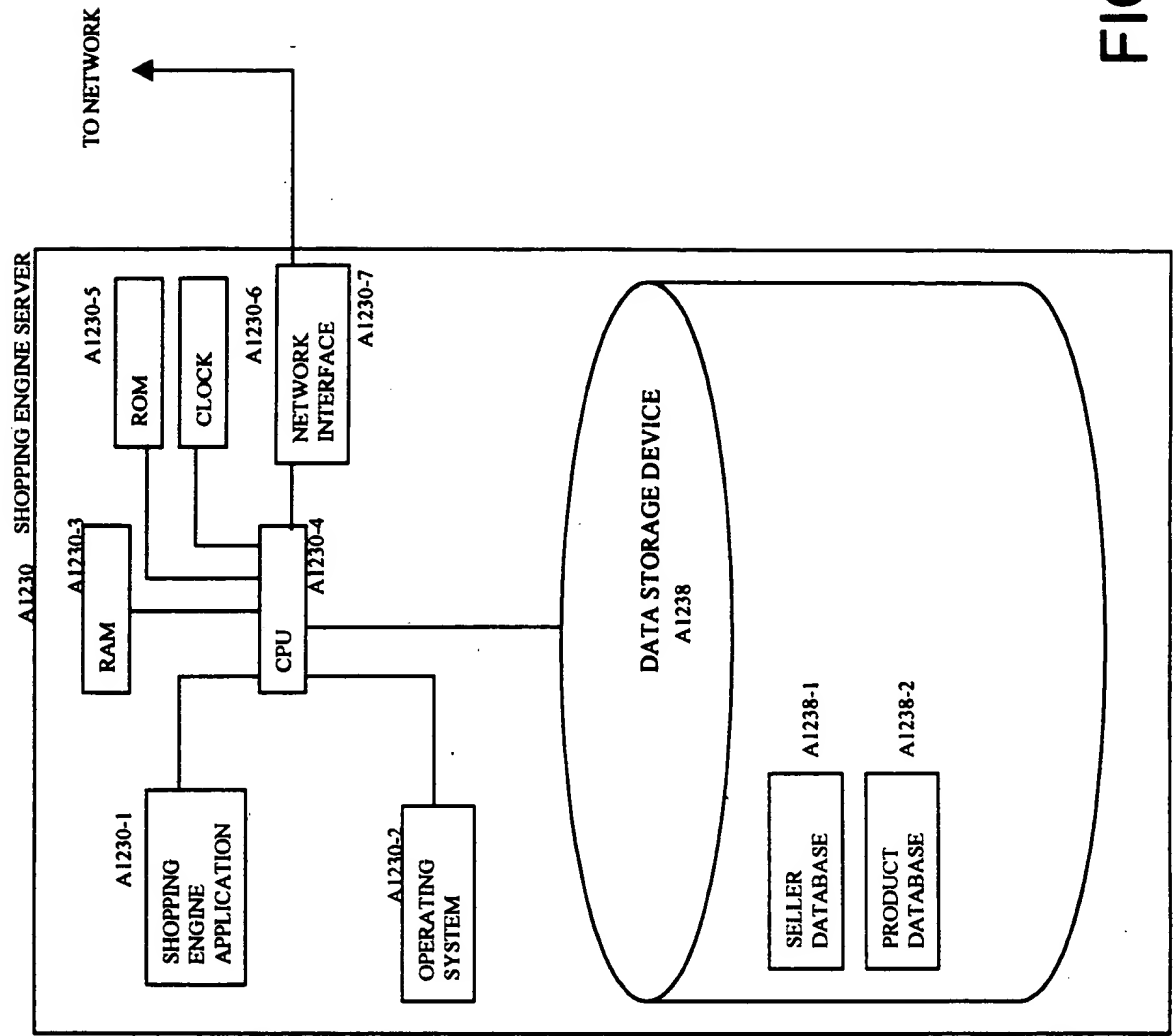


FIG. 13

FIG. 14 is a block diagram of a billing server 1400. The server 1400 includes a CPU 1402, a RAM 1404, a ROM 1406, a clock 1408, a network interface 1410, a billing application 1412, an operating system 1414, a data storage device 1416, and a billing database 1418. The CPU 1402 is connected to the RAM 1404, the ROM 1406, the clock 1408, the network interface 1410, the billing application 1412, and the operating system 1414. The RAM 1404 is connected to the CPU 1402. The ROM 1406 is connected to the CPU 1402. The clock 1408 is connected to the CPU 1402. The network interface 1410 is connected to the CPU 1402 and to a network 1420. The billing application 1412 is connected to the CPU 1402. The operating system 1414 is connected to the CPU 1402. The data storage device 1416 is connected to the CPU 1402 and contains the billing database 1418.

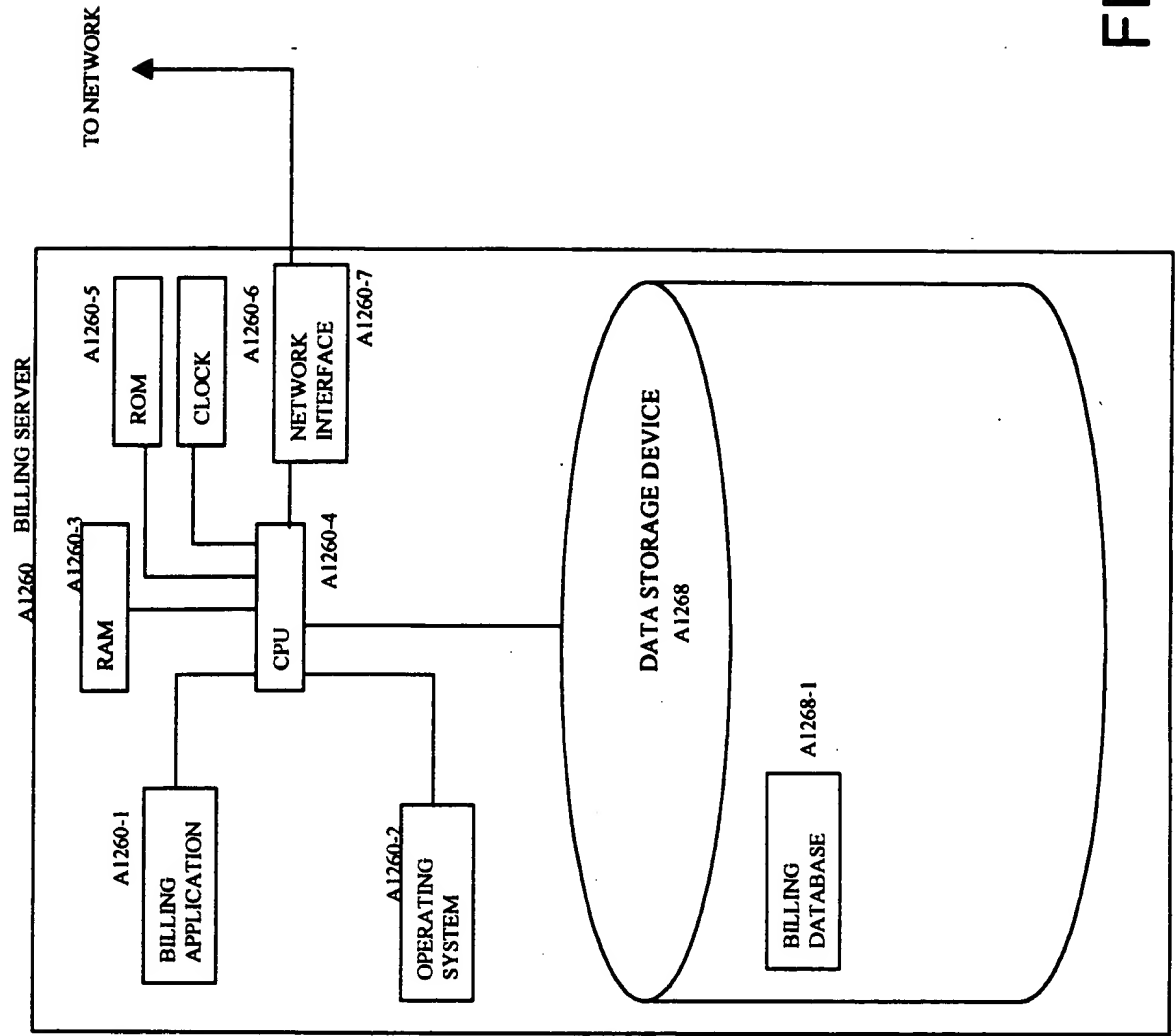


FIG. 14

FIG. 15 is a block diagram of an auction engine server 1500. The server 1500 includes a CPU 1504, a RAM 1501, a ROM 1505, a clock 1506, a network interface 1507, an auction engine application 1501-1, an operating system 1502-2, and a data storage device 1508. The data storage device 1508 includes an algorithm database 1508-1, an auction results database 1508-2, and a seller report database 1508-3. The server 1500 is connected to a network.

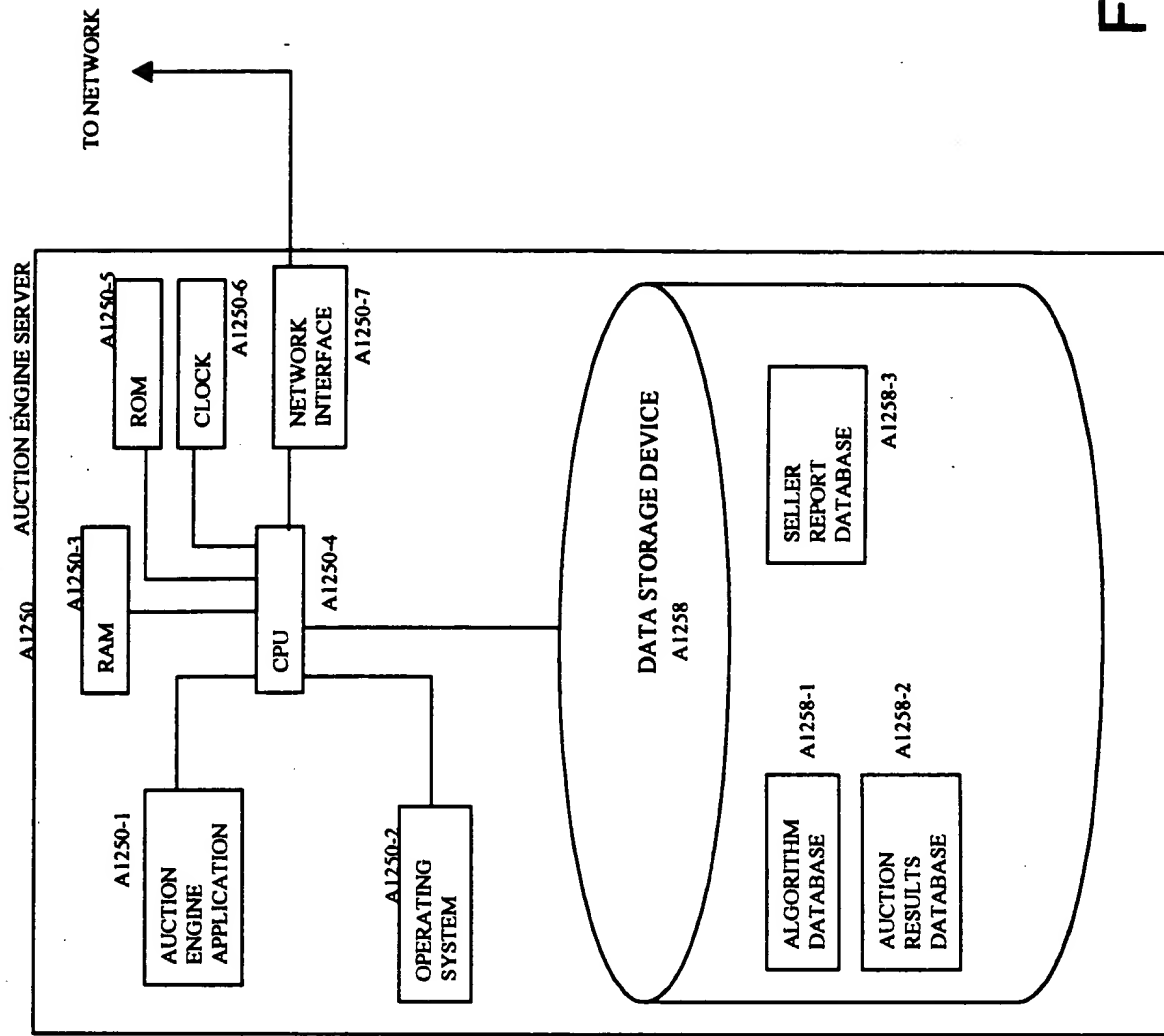


FIG. 15

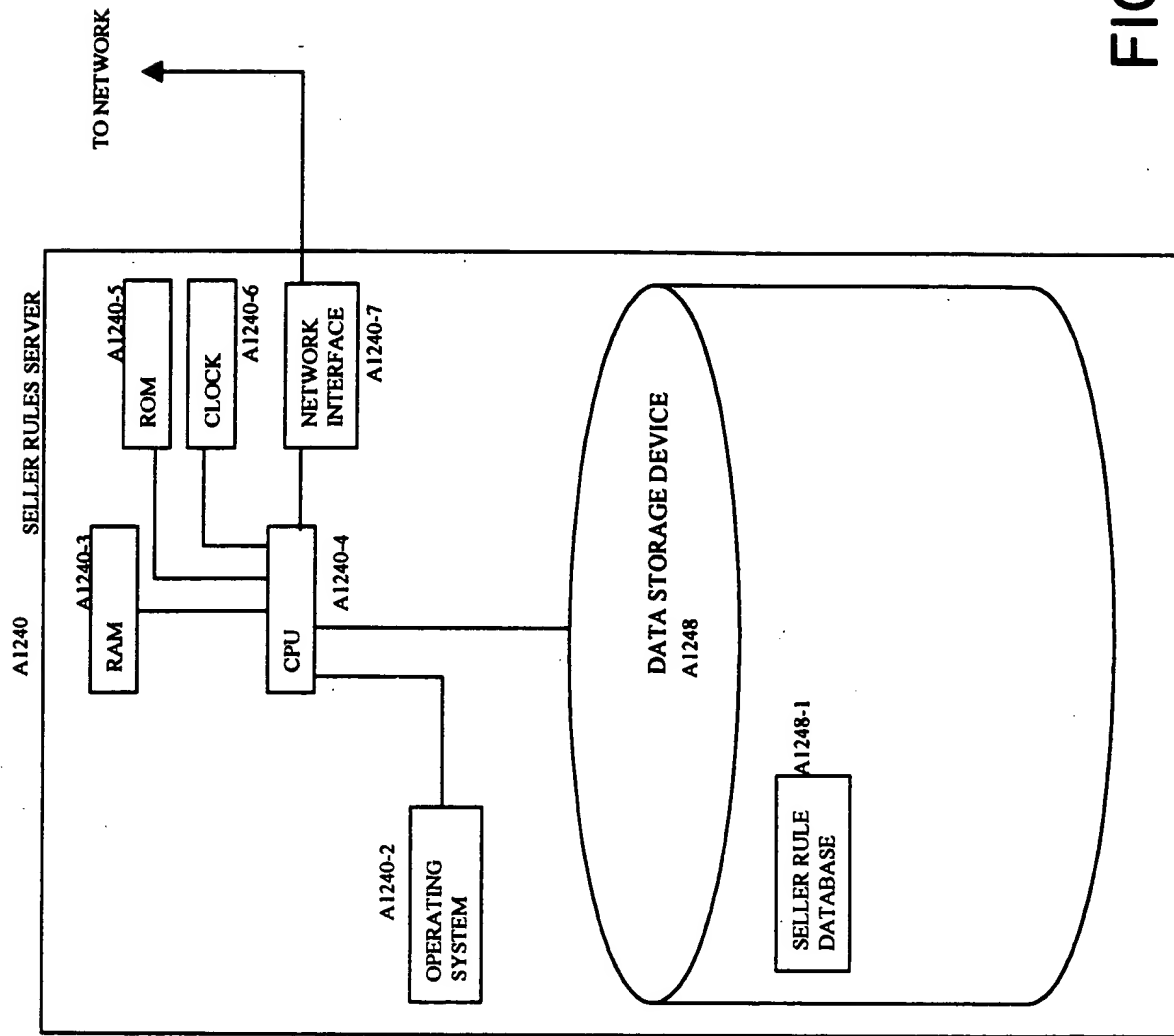


FIG. 16

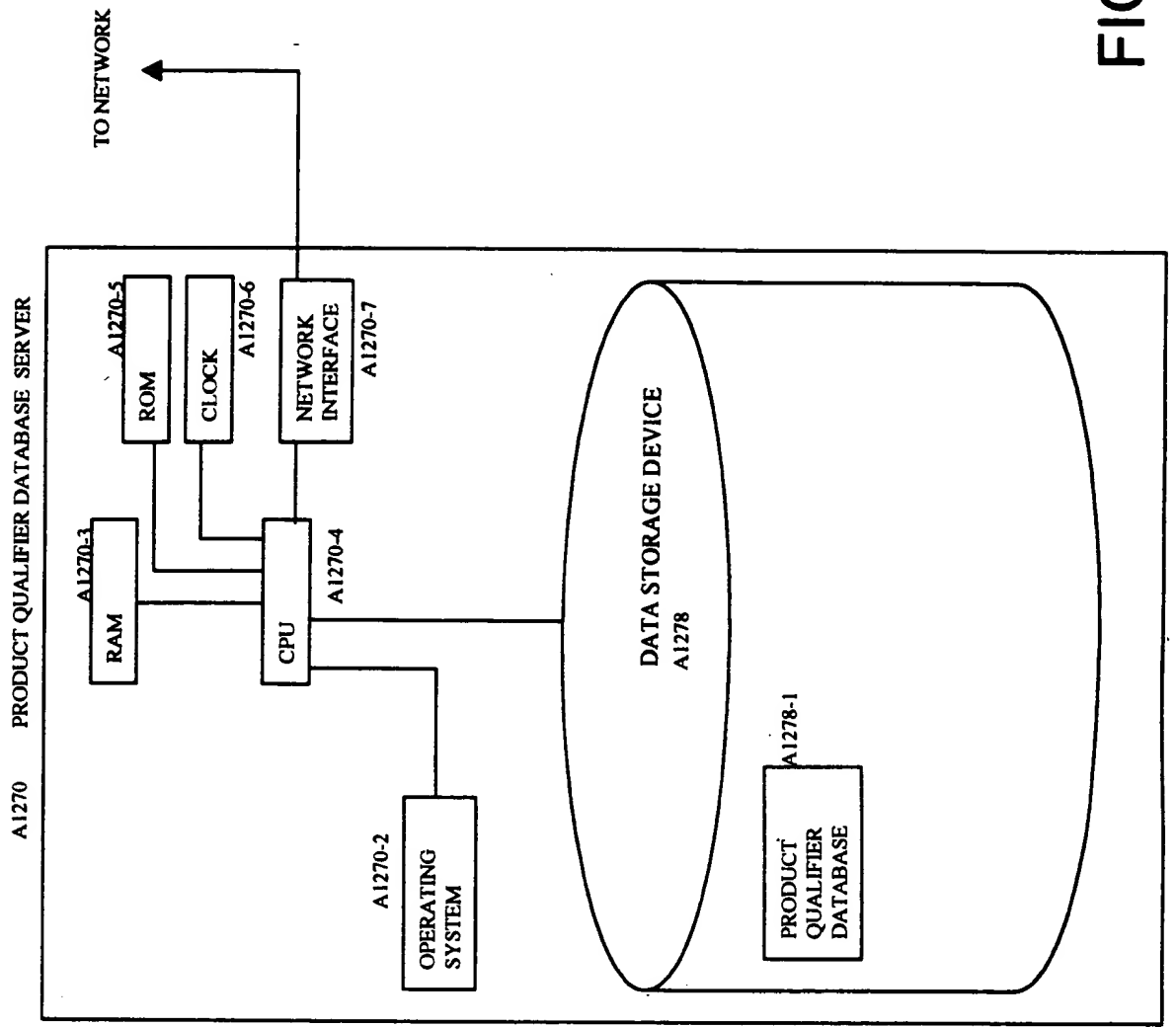


FIG. 17

FIG. 18 is a block diagram of a Buyer Database Server (A1220) connected to a network. The server (A1220) includes a CPU (A1220-4) connected to RAM (A1220-3), ROM (A1220-5), and a Clock (A1220-6). The CPU (A1220-4) is also connected to an Operating System (A1220-2) and a Network Interface (A1220-7). The Network Interface (A1220-7) is connected to a network (TO NETWORK). The CPU (A1220-4) is further connected to a Data Storage Device (A1228), which contains several databases: Subscriber Database (A1228-1), Buyer Priorities Database (A1228-2), Buyer Behavior Database (A1228-3), Buyer Demographics Database (A1228-4), and Buyer Concierge Database (A1228-5).

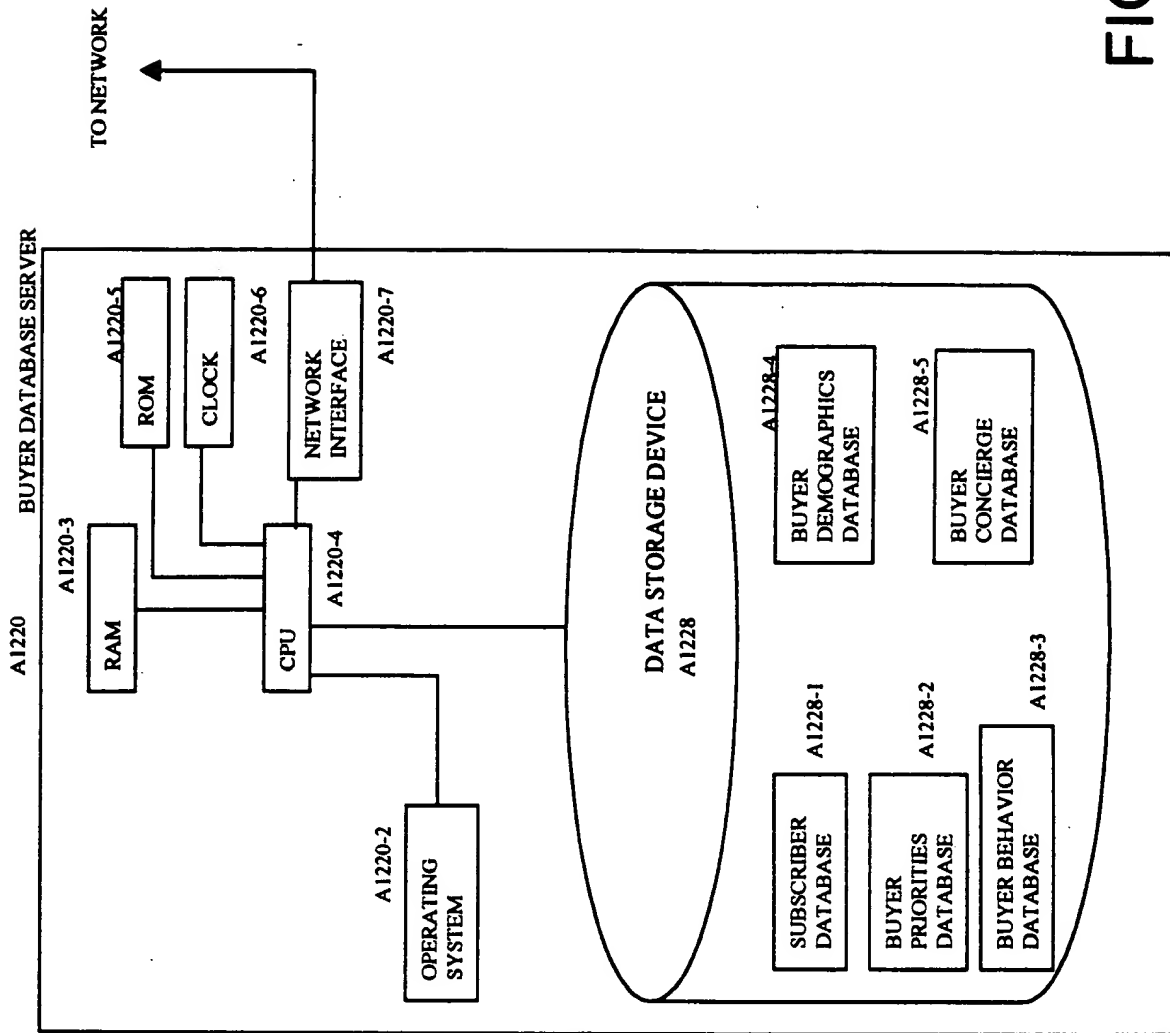


FIG. 18

FIG. 19 is a block diagram of a Direct Database Access Method Server (A800) according to one embodiment of the present invention. The server (A800) includes a CPU (A890) connected to a RAM (A840), a ROM (A850), a CLOCK (A860), a CGI/PERL API (A810), an OPERATING SYSTEM (A830), and an INTERNET INTERFACE (A895). The CPU (A890) is also connected to a DATA STORAGE DEVICE (A880). The DATA STORAGE DEVICE (A880) includes a SELLER IP ADDRESS (A881) and a DATA FORMAT DATABASE (A882). The server (A800) is connected to a NETWORK (TO NETWORK) and the INTERNET (TO INTERNET).

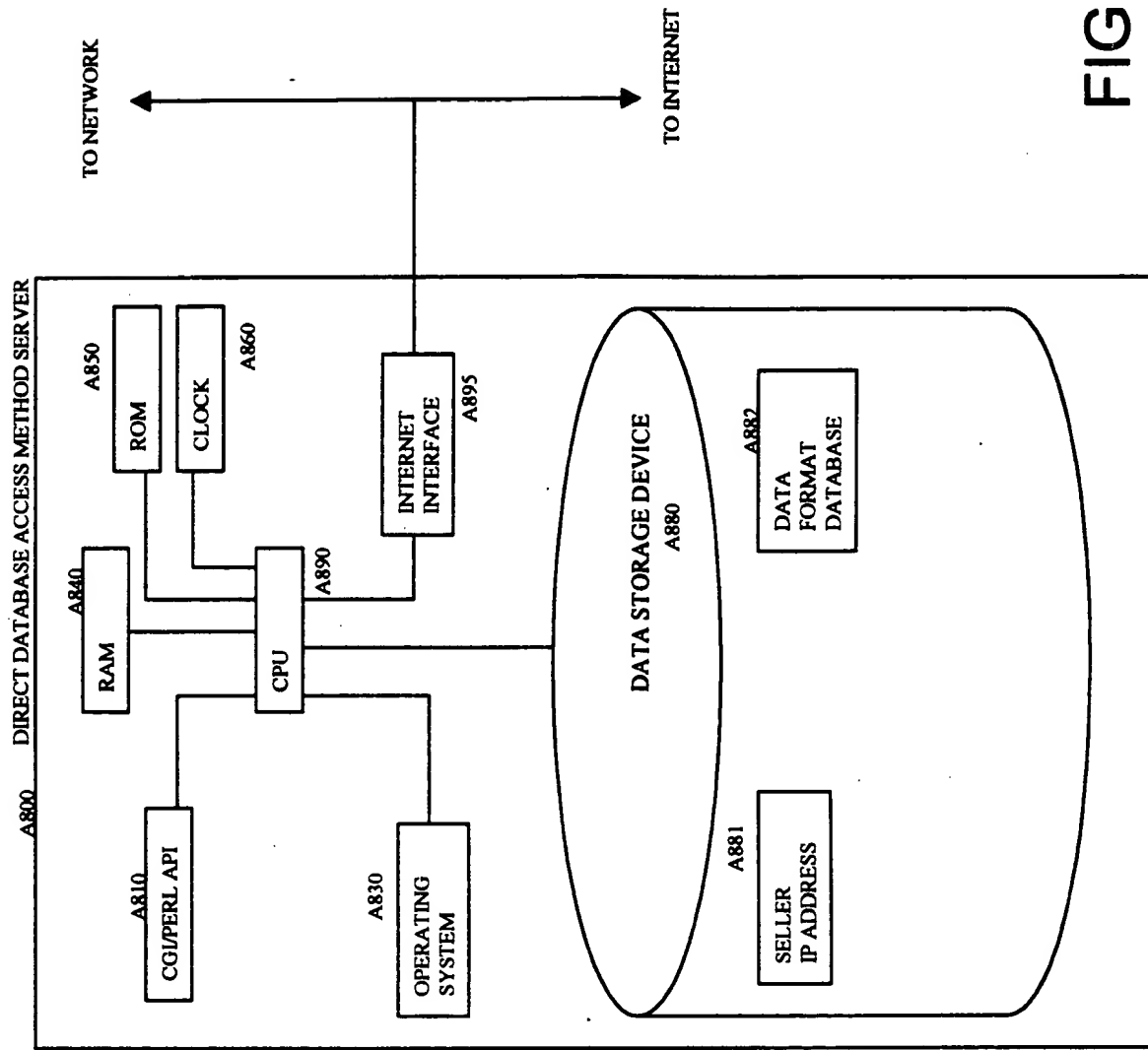


FIG. 19

FIG. 20 is a block diagram of a 3rd party database server (A1280) according to one embodiment of the present invention. The server (A1280) includes a CPU (A1280-4) connected to a RAM (A1280-1), a ROM (A1280-5), a clock (A1280-6), and a network interface (A1280-7). The CPU (A1280-4) is also connected to an operating system (A1280-2) and a data storage device (A1288). The data storage device (A1288) includes a preferences database (A1288-1). The network interface (A1280-7) is connected to a network (TO NETWORK).

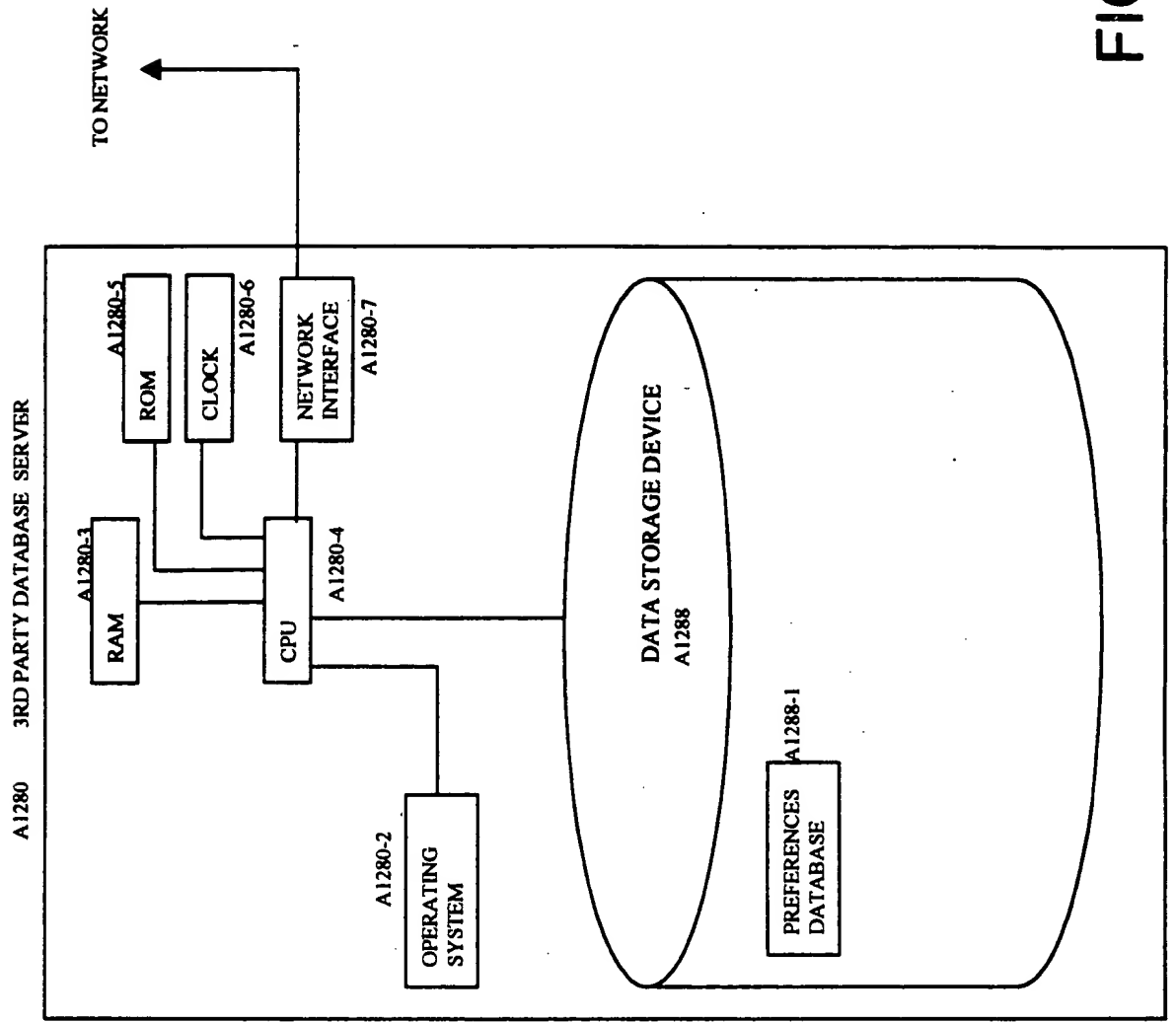


FIG. 20

FIG. 21 is a block diagram of a Value Add Database Server (A1290) connected to a network. The server includes a CPU (A1290-4) connected to RAM (A1290-3), ROM (A1290-5), and a CLOCK (A1290-6). The CPU is also connected to an OPERATING SYSTEM (A1290-2) and a DATA STORAGE DEVICE (A1298). The DATA STORAGE DEVICE contains a VALUE ADD PRODUCT DATABASE (A1298-1). The CPU is connected to a NETWORK INTERFACE (A1290-7), which is connected to the network (TO NETWORK).

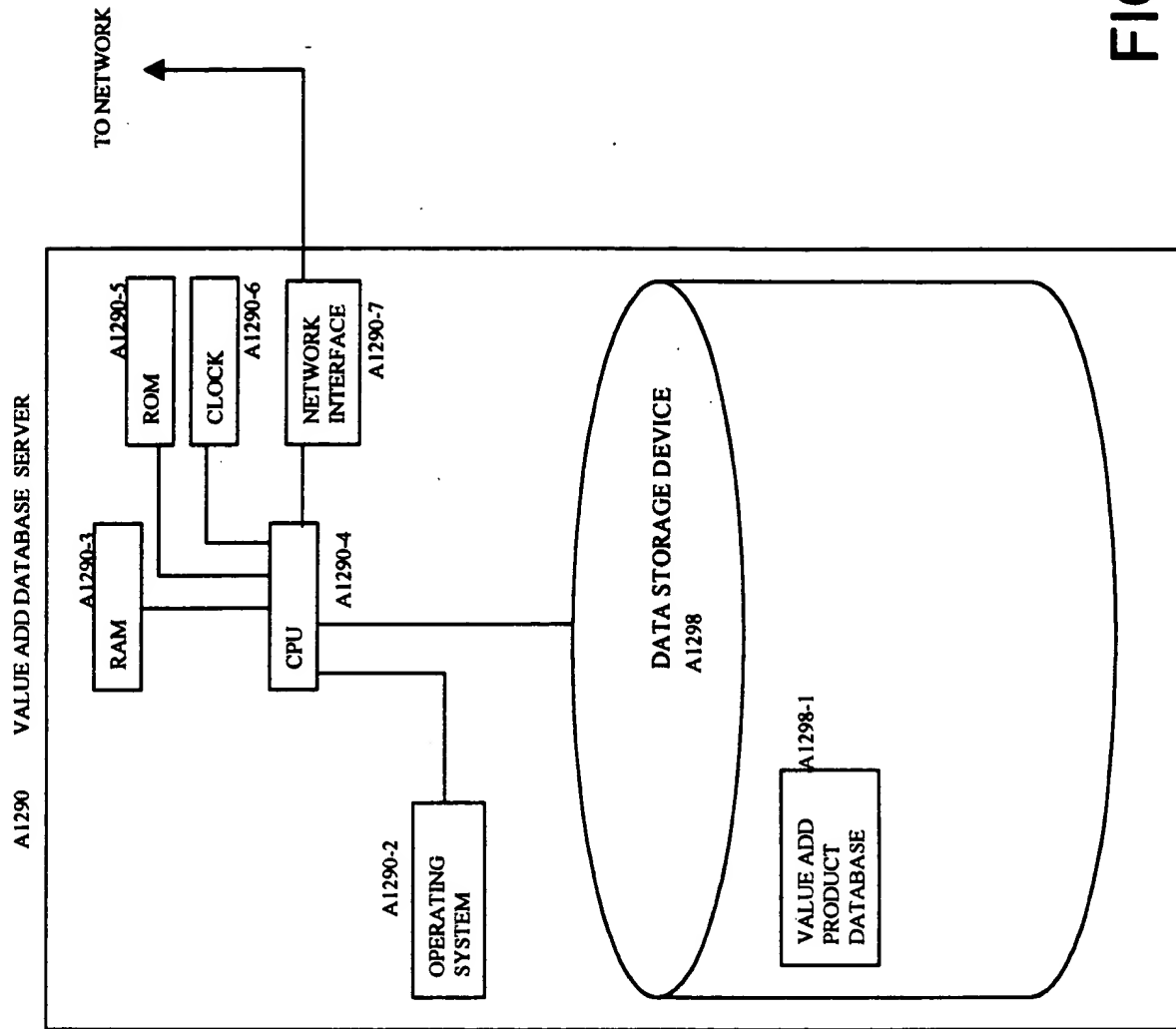


FIG. 21

FIG. 22 is a block diagram of a telephone system 2200. The system 2200 includes a telephone 2210, a POTS network interface 2220, a speaker 2230, a microphone 2240, and a ringer 2250. The telephone 2210 is connected to the POTS network interface 2220. The POTS network interface 2220 is connected to the speaker 2230, the microphone 2240, and the ringer 2250. The POTS network interface 2220 is also connected to a telephony interface server 2260.

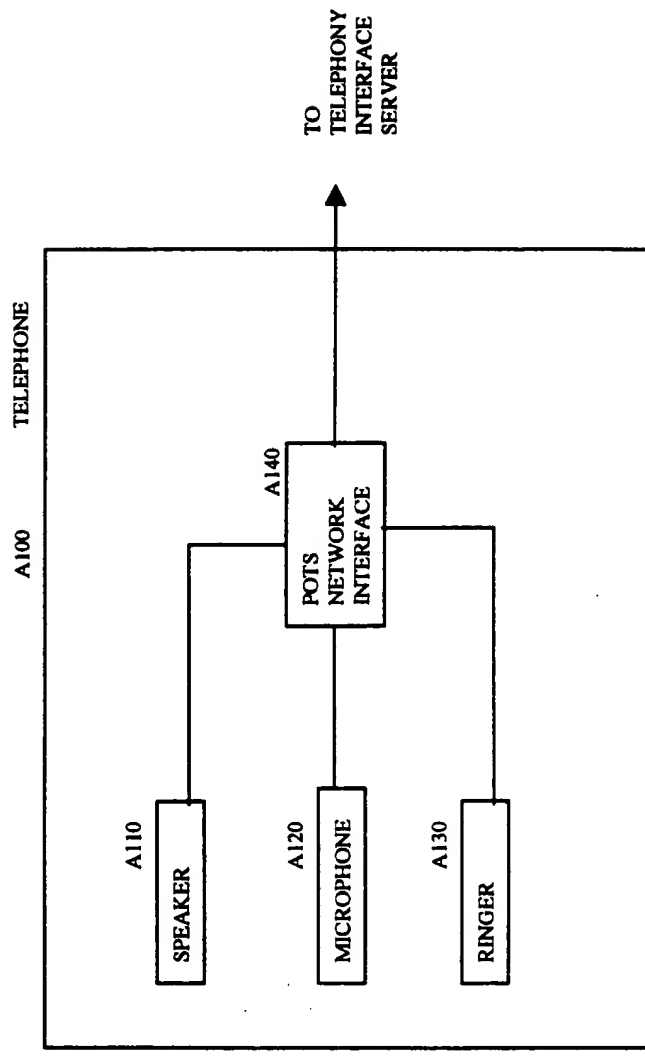


FIG. 22

FIG. 23 is a block diagram of a system for providing a buyer interface to a seller interface via a core network. The system includes a buyer interface (A400), a buyer web server (A500), a seller web server (A1000), and a seller interface (A1100). The buyer interface (A400) is connected to the buyer web server (A500) via a network. The buyer web server (A500) is connected to the seller web server (A1000) via a network. The seller web server (A1000) is connected to the seller interface (A1100) via a network. The buyer interface (A400) sends RFO 10, PRIORITIES 20, and PURCHASE 30 to the buyer web server (A500). The buyer web server (A500) sends INITIAL OFFERS 40 and ADJUSTED OFFERS 50 to the buyer interface (A400). The seller web server (A1000) sends SELLER BUSINESS RULES 60 to the seller interface (A1100). The seller interface (A1100) sends SIMULATION RESULTS 70, PURCHASE 30, and RULES ANALYSIS 90 to the seller web server (A1000). The buyer web server (A500) and seller web server (A1000) are connected to a CORE NETWORK (A1200).

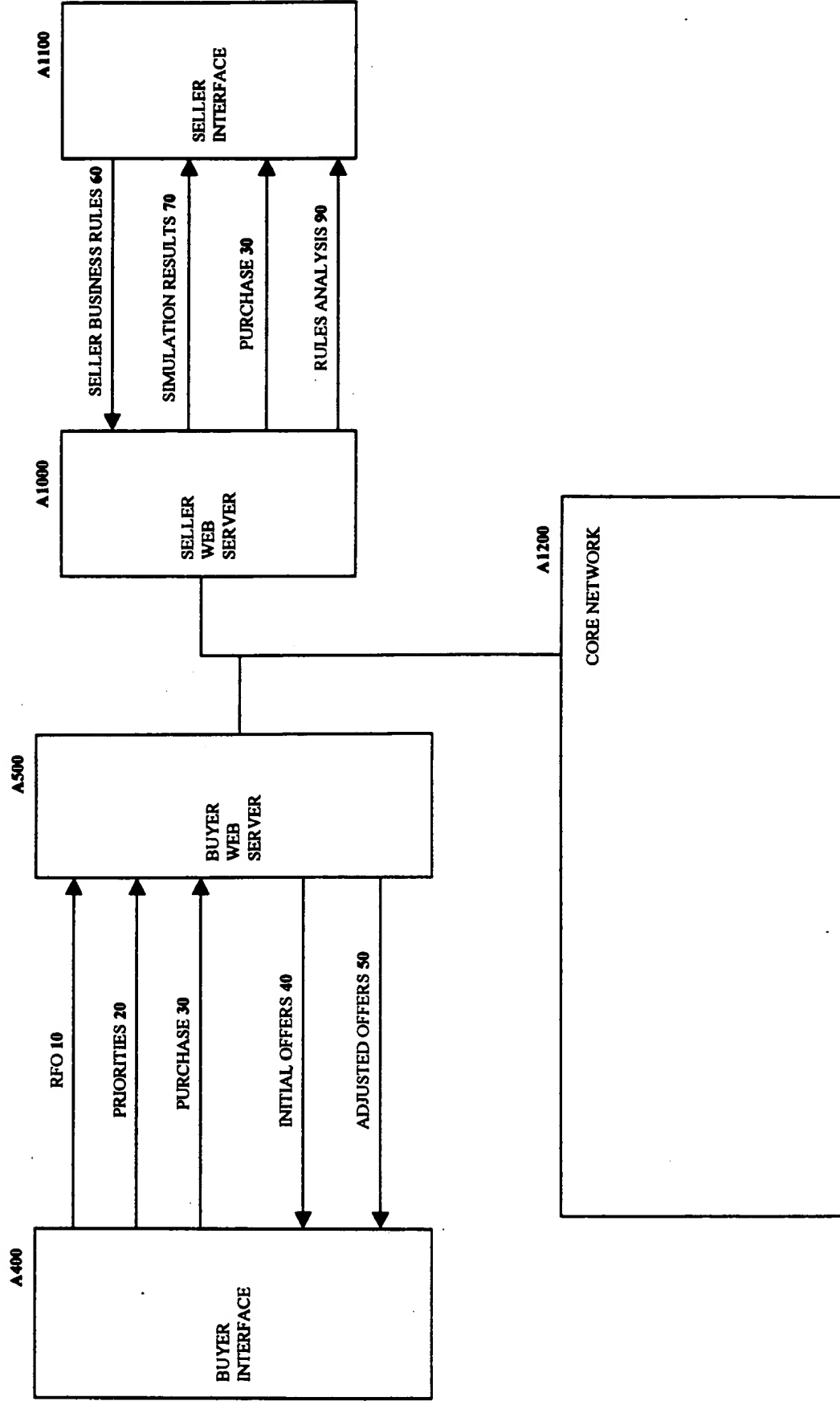


FIG. 23

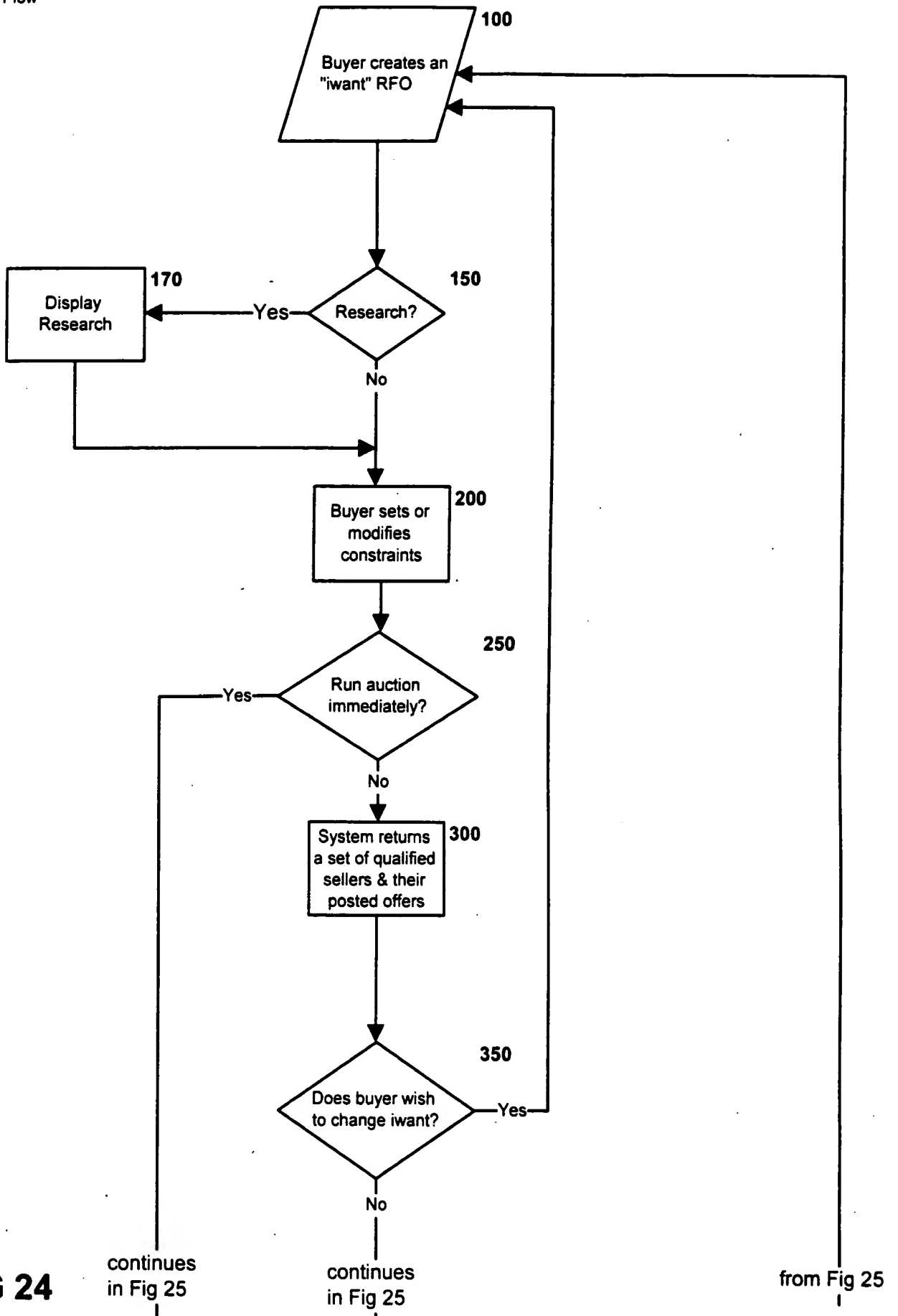
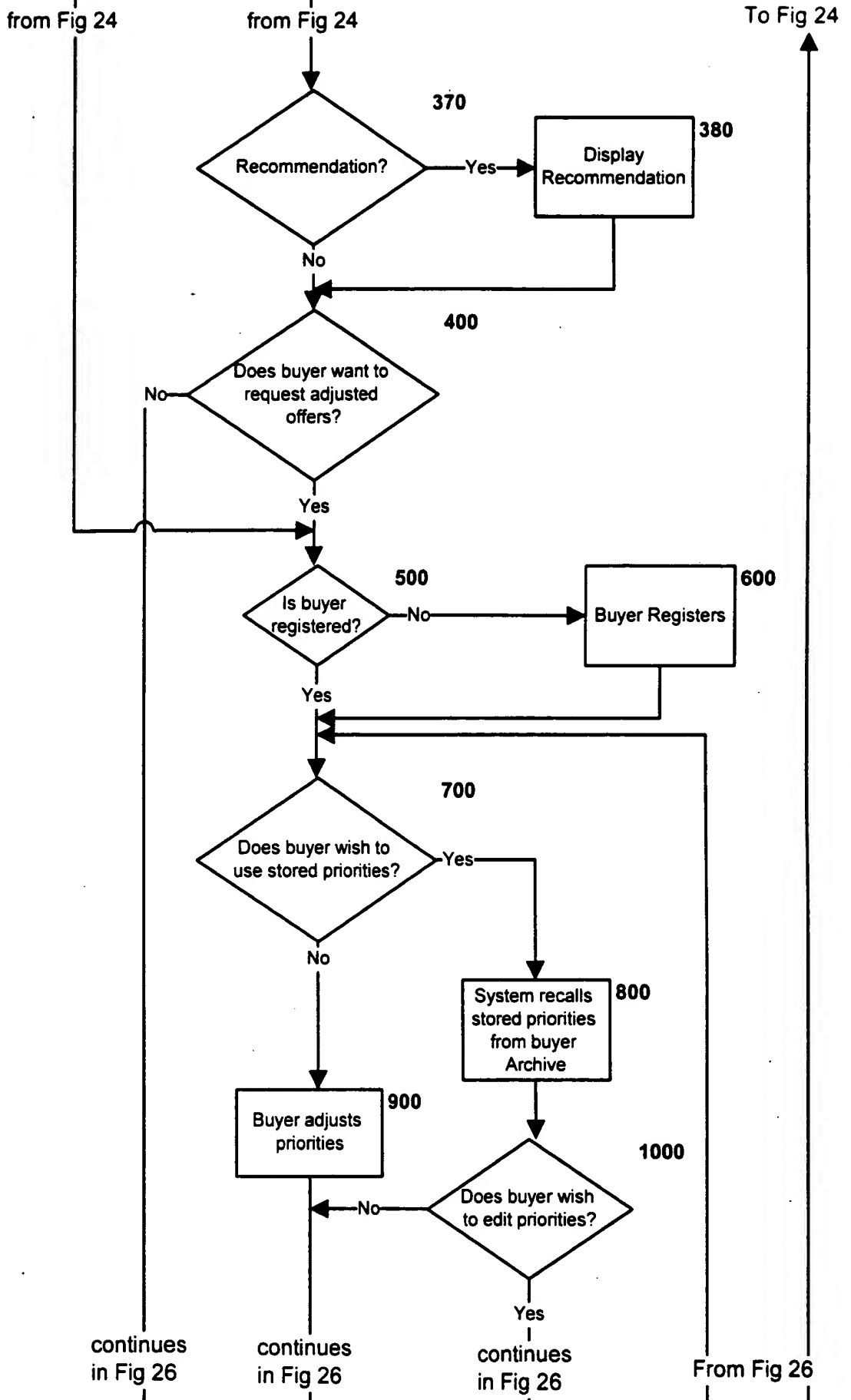


FIG 24

FIG 25



from Fig 25

from Fig 25

from Fig 25

To Fig 25

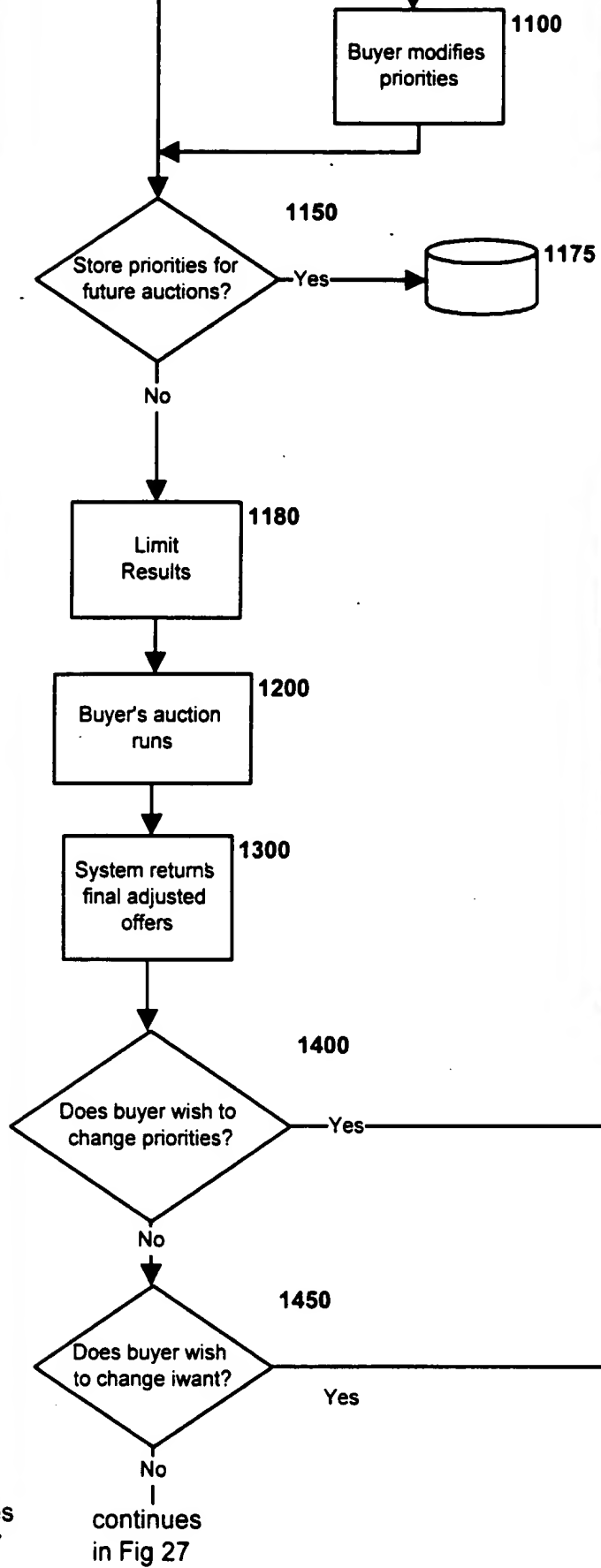


FIG 26

from Fig 26

from Fig 26

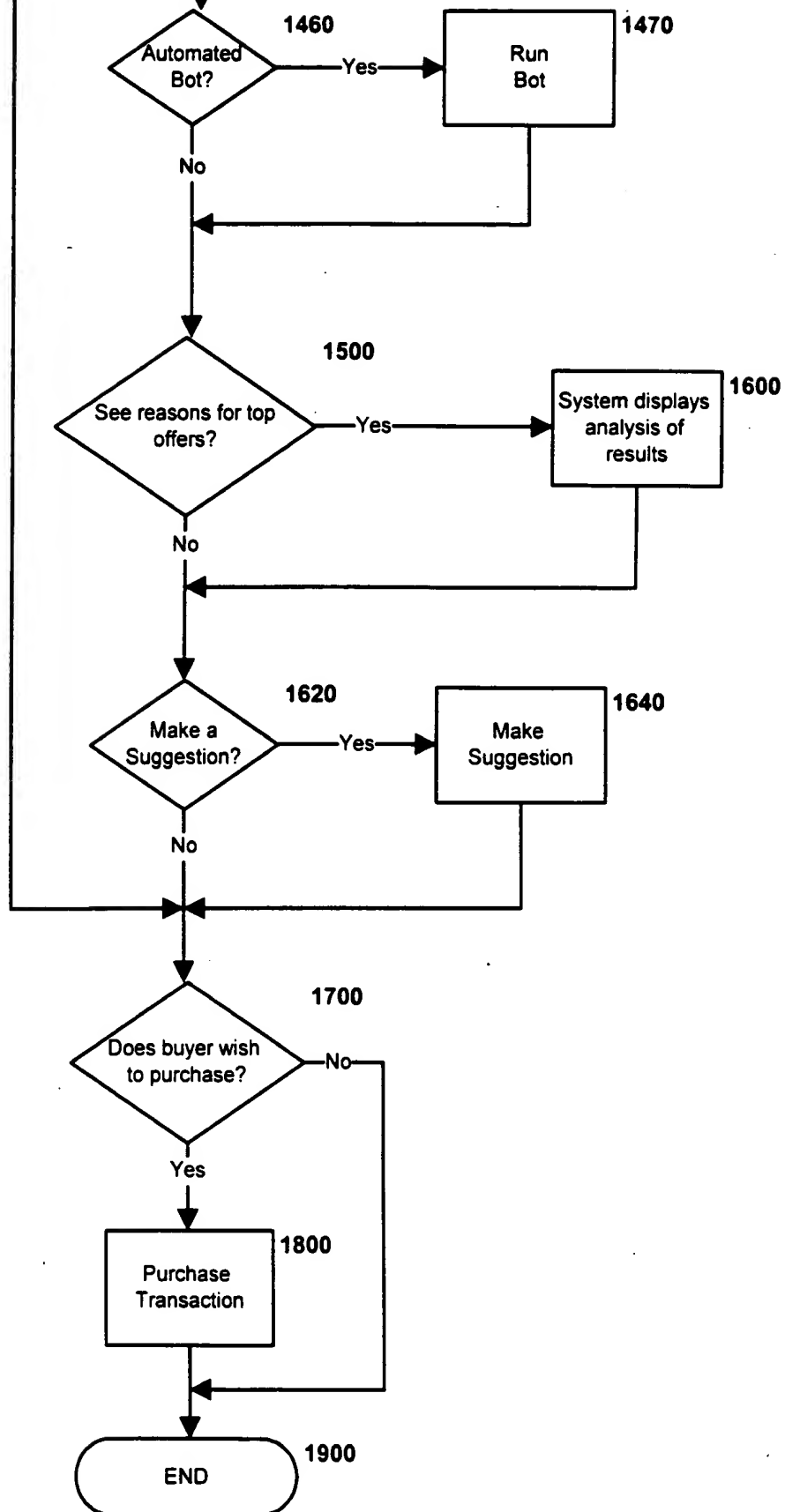


FIG 27

Buyers Auction Runs

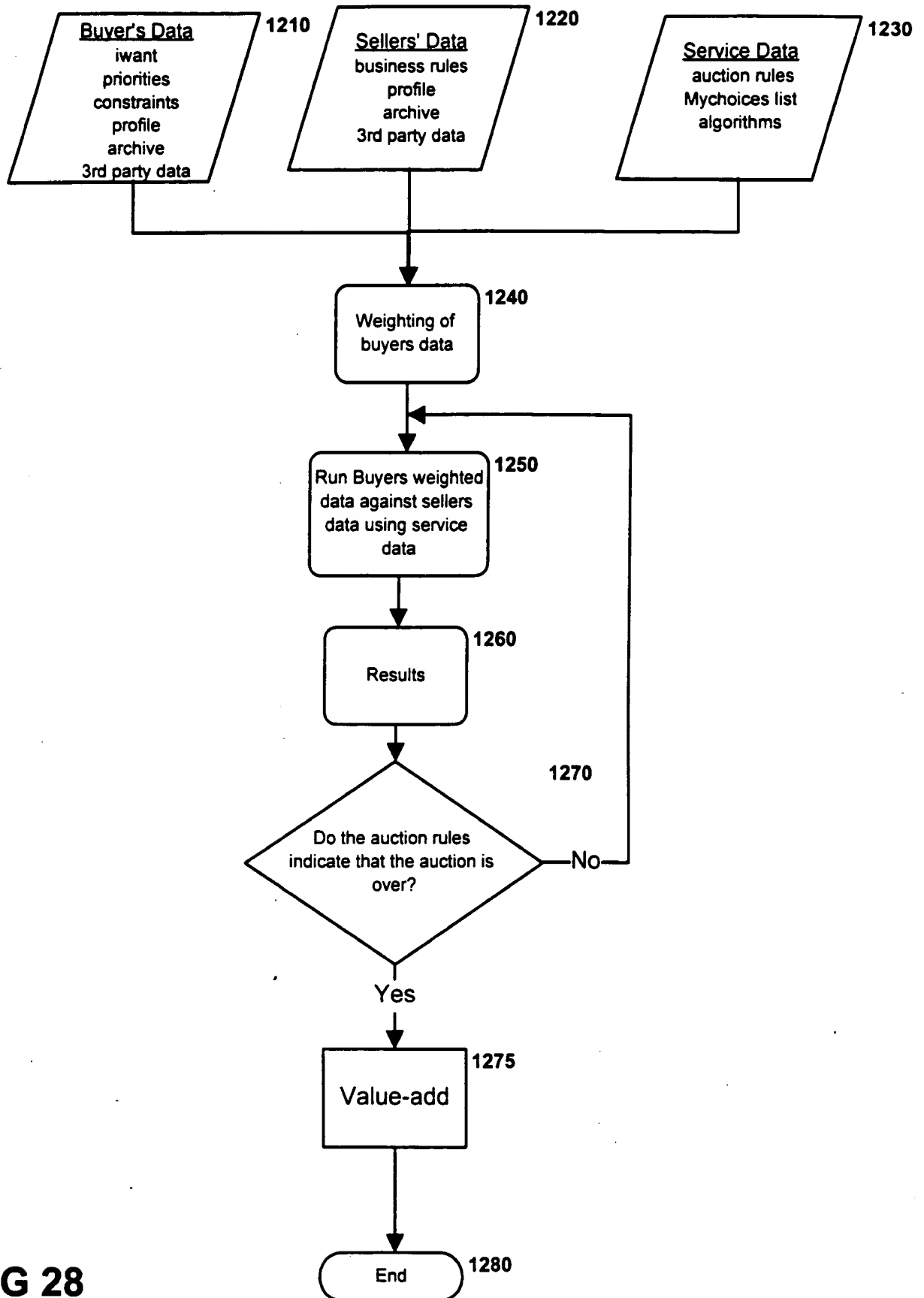


FIG 28

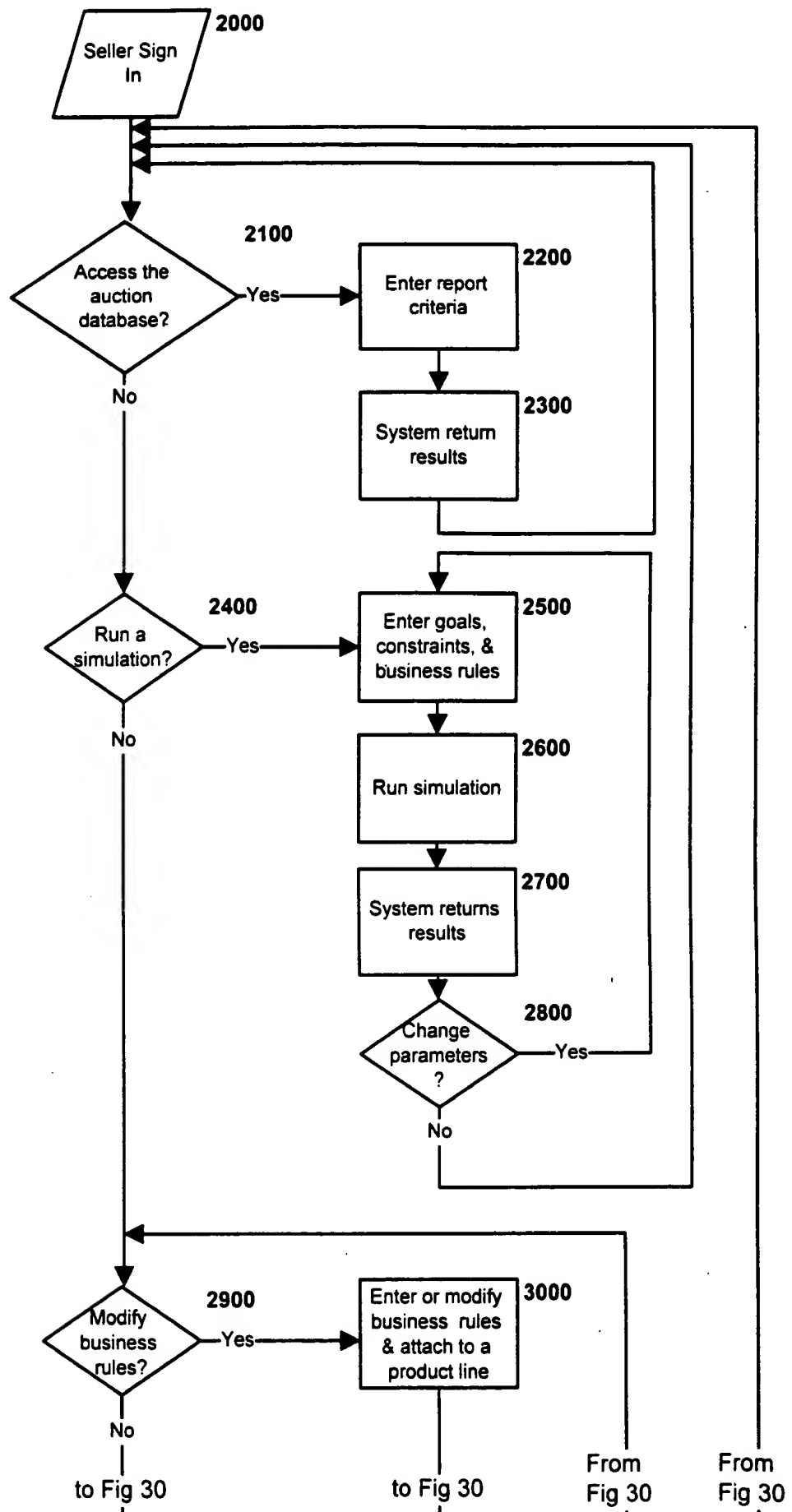


FIG 29

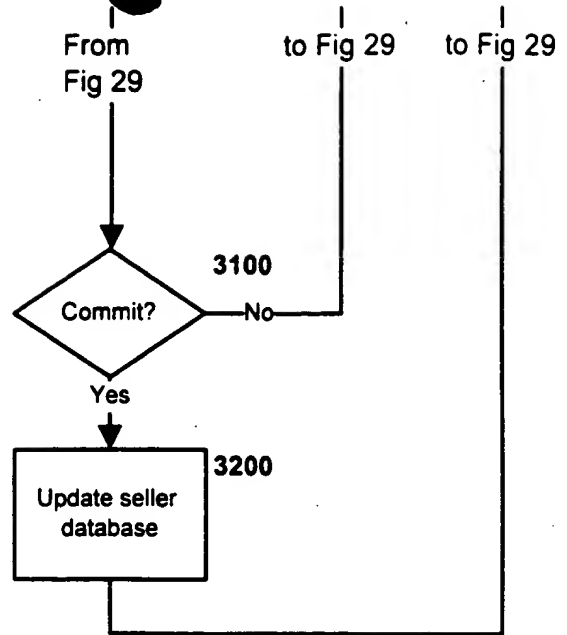
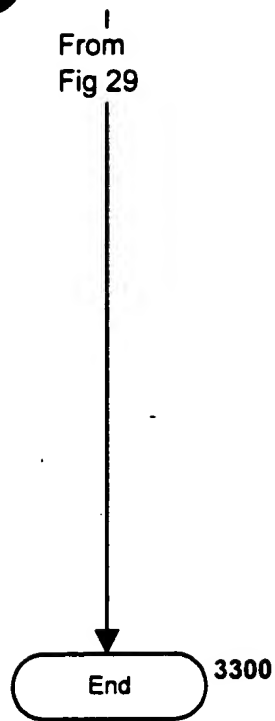
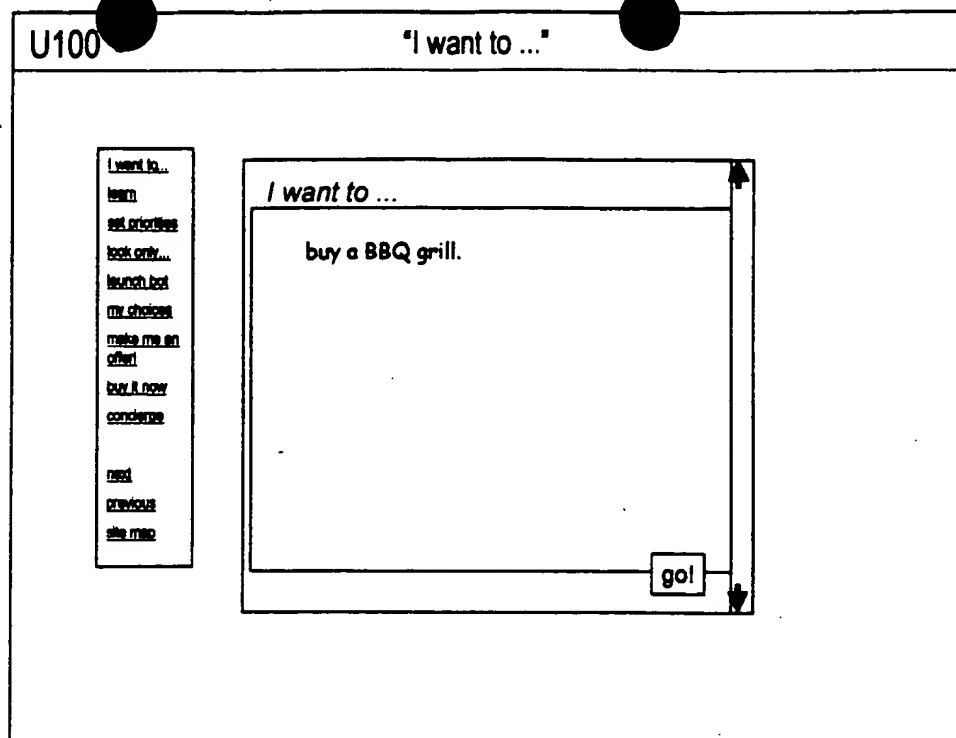
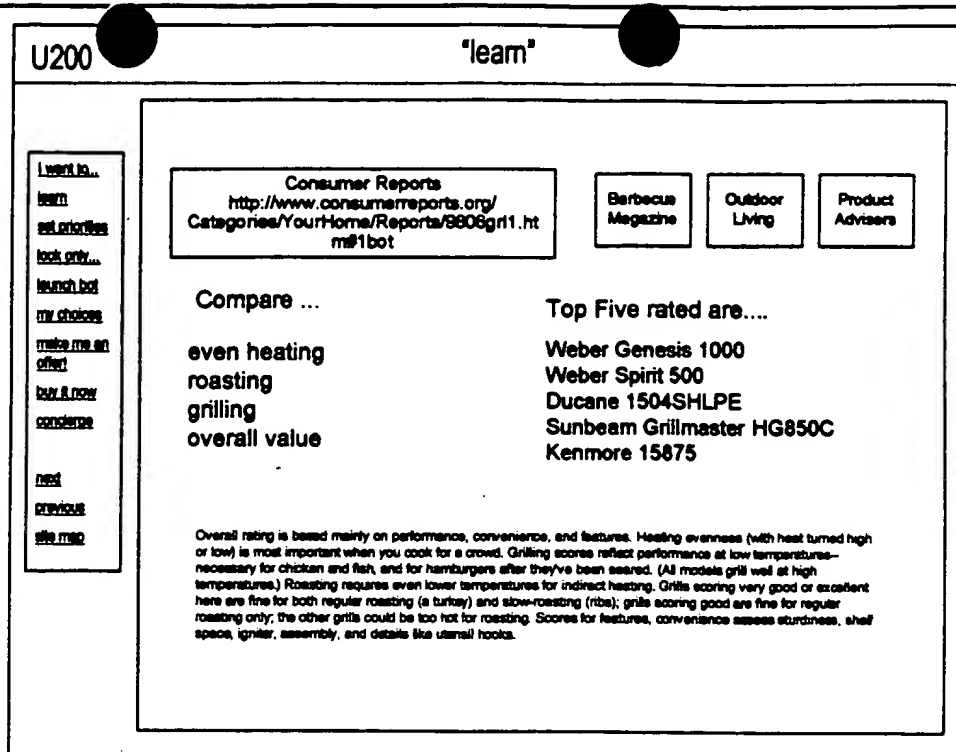


FIG 30



- The buyer perceives a need or a want for some goods or services. If the buyer could state her goals, she would say: I want to buy a (good or service), see all my choices, find the best value, ask for and receive personalized offers, enjoy the experience and not waste time or energy. The definition of a "buyer" includes: 1) a person; 2) a group of people; 3) a company; 4) a software process(bot); or 5) a buying group.
- The inquiry can be stated in natural language or using a more structured form, such as pull-down menus. Data entry can be via almost any method, including keyboard or voice. The natural language user interface (UI) allows the buyer to use words and phrases in free-form manner. A semantic parser operates on the inquiry. This method - as compared to normal keyword search, pattern recognition and statistical inference - is extremely accurate and returns high relevance answers.
- The home page could be simple or it can contain various functions, e.g., (1) The buyer can learn about the market ("learn"); (2) she can set her goals or preferences ("set priorities"); (3) she can set constraints on the search ("look only"); (4) she can access her archive ("concierge"). This home page framework is extensible.
- This "i want to..." model can be extended to include business-to-business (B2B) applications; low end products; high end products; low end services and high end services. It can also be used to look for bundles of goods and services and consignment models.
- The standard navigation bar (vertical, left element) includes short-cuts for the buyer. An experienced "power user" might choose to go directly from an "i want" to "make me an offer." A less experienced buyer, or even an experienced buyer attempting to purchase something in a category new to her, might traverse the experience more methodically. In the latter case, a buyer might do the research, set priorities, constrain her search, see her choices, and then decide to re-frame the "i want" entirely. This ability to iterate and cycle at will -- without being forced to do so -- allows each buyer to tailor the "i want" experience to their state of readiness to buy. The system allows each buyer to raise their own objections and then take whatever steps are necessary to consummate a transaction.

FIG. 31



- The service attacks five types of cost: (1) market intelligence; (2) search; (3) bargaining; (4) execution; and (5) integration. This screen shows one solution for attacking cost #1 - market intelligence.
- If the buyer asks for research and advice, in this embodiment she receives a summary of the key features and a recommendation of the top five rated products from a rating service (e.g., Consumer Reports). For deeper research a convenient one-button URL takes her directly to a page that contains a summary of all the product categories in Consumer Reports. A cookie brings her right back again.
- She can also access other sources of advice and product ratings, in this case three magazines. Many other sources of product and survey reviews can be used, including Guides.
- Initially, each data source will be accessed individually (as above). Over time, the various data sources can be merged into one master database by the iwanto.com editorial staff. Aggregating data is a convenience to the buyer.
- This research and advice framework ("learn") is extensible. As new sources of expertise, data and advice become available electronically, they can be integrated into this framework.

FIG. 32

U300
"my priorities"

I want to...
learn
priorities
look only...
launch bot
my choices
make me an
offer
buy it now
concede

next
previous
site map

my priorities
very important
not important

Price
shipping & handling, tax

Product ratings
by customers, expert

Warranty
time, cost of extension

Financing
no-payment period, interest

Delivery
availability, when delivered

Popularity
site traffic, market share

Air miles

decide for me

normal

advanced

go!

- A buyer's decision is influenced by many variables. Using this interface, the buyer is able to express what is important to her – the trade-offs that she implicitly makes in effecting a purchase. The "my priorities" tool helps her articulate those goals, and their relative importance, using an "analog" interface such as sliders. An algorithm running under this model assigns different weightings to each variable. Those weighting factors can be weighted: (1) solely by the buyer's settings, i.e. deterministic; (2) and/or a weighted average of the buyer's ratings and the ratings of a peer group; or (3) by the weightings of a demographic model, derived from large-scale anonymous consumer databases that identify large-sample preferences.
- The buyer has a choice of creating her "my priorities" one time (global); or tuning it differently for each inquiry; or 3) tuning it at anytime during a Round. The buyer also has a choice of touching a default button ("use standard settings") that defaults into item (2) or (3) above.
- The buyer can have a choice of settings for how much automation is provided by the system. The simplest form "decide for me", lets the system set all defaults based on its archival information; the next level, "normal", presents a simple, minimal set of choices for the buyer. The top level, "advanced", lets the buyer carefully constrain the "iwanto" experience.
- This framework for setting buyer preferences, goals and priorities and the tradeoffs between them is fully extensible. In the future, other interesting methods of expressing tradeoffs can be implemented.
- In this illustration, the buyer for this specific round is interested in financing, extended warranty, fast delivery and air miles. She is not as concerned about price, site popularity or product rating. The same buyer might try any number of preferences until she converges on (understands and accepts) her utility function.

FIG. 33

U310

buyer's level of expertise

I want to...
 learn
 priorities
 look only...
 launch bid
 my choices
 make me an
 offer
 buy it now
 condense

 next
 previous
 site map

What I usually do ...

What my peer group does...

decide for me

normal

advanced

• This is an illustration of the simplest level, "decide for me". The buyer might be uncertain of her priorities. The service provides several assistants:

• 1) Do what I usually do, not necessarily what I say. Based on recent buying behavior, the buyer might believe that she is price conscious, but in fact is more sensitive to changes in financing or warranty. This button 'snaps' the settings to reflect her actual behavior.

• 2) Do what my peer group does. The service has a filter to "snap" the buyer's settings to the median of her peer group. The definition of a peer group could be macro (large-number population) or specific, e.g., people who live in one city, or people who pursue a combination of one sport (skiing) and are also single and also have graduated college.

• This framework for using system-set defaults is fully extensible. Underlying each level is an algorithm, which can be simple (linear) to complex (quadratic, or even based on a linear optimization model). New algorithms for setting user defaults can be introduced at any time.

FIG. 34

U400

"look only ..." (constrained search)

I want to...
 learn
 priorities
 look only...
 launch list
 my choices
 make me an
 offer
 buy it now
 condense
 next
 previous
 site map

location look ...

Only locally within 15
 miles

✓ USA only

Whole world

normal

advanced

product quality look ...

✓ only for products rated by
 Consumer's Reports.

Only at the top ten rated products

Only for products with reviews by
 leading magazines.

Only for things I specified by name
 and model.

No more than my maximum price
 of \$_____.

✓ Suggest alternatives.

- This is an illustration of the "advanced" setting. "Look" is an extensible framework. It delimits the search in any number of interesting ways. For example, the buyer can decide how broadly she wants to look for sellers. If the buyer intends to visit a real store to see the product before purchase, she can ask for "local" only, or within X miles; or by state or region; or worldwide.
- Other choices for constrained searches are also possible. For illustration: (1) only my "favorite" merchants; (2) only products that are rated by Consumer's reports; etc. The easiest choices are within a few miles of home (80% of all purchases). The "USA" option can be aware of shipping costs and set to take advantage of no sales taxes in certain states. Or, the buyer can constrain the search to only those products reviewed by an expert (e.g., a leading magazine, an authoritative person, a peer group evaluation). Or, the buyer can constrain the search to certain product characteristics, e.g., a price range.
- Further the buyer can ask for product suggestions and alternatives. This presents significant upsell opportunities to sellers. The service is different than price comparison services because it diminishes the emphasis on direct price competition. Instead, it focuses the dialogue between buyer and seller on the qualitative aspects of the transaction.

FIG. 35

e-merchant quality look ...

- √ Only for sellers accredited by Bizrate.
- Only for sellers that I've bought from in the past
- √ Only sellers that have a return policy.
- Only sellers that guarantee shipment within one day.
- √ Only sellers that offer air miles.

where can i see it ... ?

nearest store
(name, address, phone, map)

normal advanced

- This is a continuation of the "advanced" setting.
- In addition to product quality, the buyer can also constrain or limit searches based on e-merchant quality. For illustration: (1) only sellers that are familiar to the buyer; (2) only sellers rated by an independent rating service; (3) only sellers with certain performance guarantees, e.g., delivery time; or (4) only sellers that offer certain bonuses, e.g., air miles.
- Other buyer requirements will emerge over time. One illustration of a potentially popular element for product purchases is "where can I see it ...?" In this illustration, the buyer can ask for the name of the nearest store (e.g., identified by the manufacturer's database), and directory information (address, phone), and a map with driving directions (e.g., MapQuest).
- This framework of constrained search is fully extensible. As the number of e-sellers multiplies - possibly by 100X per category in the next 10 years - constraining search in a meaningful and relevant fashion will become ever more important. As new dimensions of constrained search become important (e.g., security and privacy considerations, trusted third party issues, availability of video demos etc.), such constraints can be added to this framework.

FIG. 36

U500
automated "i want" launch bot

I want to...

learn

priorities

look only...

launch bot

my choices

make me an offer

buy it now

concierge

next

previous

site map

173444

look...

I want to buy a BBQ grill. gas.
very good quality. discounted.

every ...

& notify me via ...

Day

Week

Month

e-mail

mobile phone

paper

television

when ...

the item shows up
only when the score is greater
than ...

90

OK

- The buyer can create an automated "i want" bot that launches itself at a designated time period, e.g., every Tuesday, once a month, one week before a birthday or anniversary date. The bot also receives notification instructions when it receives an offer that passes certain criteria, e.g., total score of 90+.
- The notification preferences are expandable as new forms of intelligent devices connect to the web.
- The preference data can be kept in the Concierge and can be changed at any time.
- The service can support an unlimited number of automated bots on behalf of the buyer. It is possible to arrange the technology whereby the bots can work independently or they can work in a coordinated fashion, e.g., assembling a complex vacation package that includes a hotel, airfare, car rental, trip insurance etc.
- A "chat" button can also be added. This button can launch a variety of chat services, either resident inside iwanto.com or at the seller's site. The simplest form is a 1:1 text and/or voice chat with the seller's sales representative. Other varieties include text and/or voice chat with anybody who happens to be interested in BBQs at that moment (a synthetic group). Or an expert (consultant, adviser, guide). Or a user group. Text chat is now being augmented with voice chat. Video chat can also be integrated into the framework.
- This framework of creating, launching and managing a buyer's bot is fully extensible.

FIG. 37

U600
'my choices' result

sort by price

Round 173444

<div style="border: 1px solid black; padding: 2px;">I want to...</div> <div style="border: 1px solid black; padding: 2px;">learn</div> <div style="border: 1px solid black; padding: 2px;">priorities</div> <div style="border: 1px solid black; padding: 2px;">look only...</div> <div style="border: 1px solid black; padding: 2px;">launch bot</div> <div style="border: 1px solid black; padding: 2px;">my choices</div> <div style="border: 1px solid black; padding: 2px;">make me an offer</div> <div style="border: 1px solid black; padding: 2px;">buy it now</div> <div style="border: 1px solid black; padding: 2px;">conclude</div> <div style="border: 1px solid black; padding: 2px;">need</div> <div style="border: 1px solid black; padding: 2px;">previous</div> <div style="border: 1px solid black; padding: 2px;">site map</div>	<div style="border: 1px solid black; padding: 2px;">1. bbq.com</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">chat</div> <div style="padding: 5px;"> <p>Closesouts, over-stocks, many items from around the world</p> </div>	<div style="border: 1px solid black; padding: 2px;">Weber Genesis 1000</div> <div style="padding: 5px;"> <p>Many extras. Fully loaded. Needs some assembly.</p> <p>\$254 MSRP \$319</p> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;">product thumbnail</div>	<div style="padding: 5px;"> <p>12 day delivery \$30 S&H No financing 90 day Warranty buy 2, 30% off</p> </div>
<div style="border: 1px solid black; padding: 2px;">2. e-home.com</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">chat</div> <div style="padding: 5px;"> <p>We stock 4,800 models for men & women from 120 companies</p> </div>	<div style="border: 1px solid black; padding: 2px;">Ducane 1504SHLPE</div> <div style="padding: 5px;"> <p>Full featured BBQ.</p> <p>\$454 MSRP \$684</p> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;">product thumbnail</div>	<div style="padding: 5px;"> <p>5 day delivery \$40 S&H pay in 6 installments 12.6% interest 1 yr. warranty</p> </div>	
<div style="border: 1px solid black; padding: 2px;">3. backyard.com</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">chat</div> <div style="padding: 5px;"> <p>The largest wholesaler of toys. We specialize in imports from ...</p> </div>	<div style="border: 1px solid black; padding: 2px;">Sunbeam Grillmaster HG850C</div> <div style="padding: 5px;"> <p>Everything Included for grilling and roasting, fish, chicken, steaks.</p> <p>\$388 MSRP \$624</p> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;">product thumbnail</div>	<div style="padding: 5px;"> <p>3 day delivery \$58 S&H pay in 3 installments 12% interest 2 year warranty</p> </div>	

adjust myPriorities

make a recommendation

make me an offer!

- When the buyer touches the "go" button, the natural language inquiry ("I want to...") coupled with the decision criteria (my priorities) are launched against a database of e-merchant goods and services. This database can be either pre-compiled; or compiled on the fly; or a combination of the two.
- The search bot assembles all the high-relevance offers in a consistent manner, corresponding as closely as possible to the standard decision criteria as seen in the myPriority tool. The offers can be sorted by any arbitrary field, such as name of seller, asking price, or any of the priorities. In this illustration, the buyer sorted by posted prices. [bbq.com](#) sorted into the #1 position.
- It is expected that many sources of data can be aggregated into the "my choices" reporting framework. It is therefore fully extensible, adding new features and functionality supported by third party providers of relevant market data that can be integrated into "my choices".
- The buyer can delimit the results that are displayed by top 100 (or any number); highest score from the recommended; or by any of the criteria, such as delivery time or warranty.
- The "my choices" answers are all pre-adjustment. They are exactly as would be found on the seller's web-sites by any buyer or seller. The answers can be pre-filtered to remove offers which are clearly not going to be relevant or are purposefully misleading. This pre-filtering uses the "my priorities" criteria module.
- The buyer can also launch the "make a recommendation" function. The recommendation engine uses the "my priorities" weights and analyzes all the data in "my choices".

FIG. 38

U700
"make a recommendation"
Round 173444

I want to...

learn

priorities

look only...

launch bot

my choices

make me an offer!

buy it now

conserve

next

previous

site map

<p>1. e-home.com</p> <p style="text-align: right;"><input type="button" value="chat"/></p> <p>We stock 4,600 models for men & women from 120 companies</p>	<p>Ducane 1504SHLPE Full featured BBQ.</p> <p>\$454 MSRP \$684</p>	<p>5 day delivery \$40 S&H pay in 6 installments 12.6% interest 1 yr. warranty</p> <p style="text-align: right; font-size: 1.2em;">91</p>
<p>2. bbq.com</p> <p style="text-align: right;"><input type="button" value="chat"/></p> <p>Closeouts, over-stocks, many items from around the world</p>	<p>Weber Genesis 1000 Many extras. Fully loaded. Needs some assembly.</p> <p>\$254 MSRP \$319</p>	<p>12 day delivery \$30 S&H No financing 90 day Warranty buy 2, 30% off</p> <p style="text-align: right; font-size: 1.2em;">84</p>
<p>3. backyard.com</p> <p style="text-align: right;"><input type="button" value="chat"/></p> <p>The largest wholesaler of toys. We specialize in imports from ...</p>	<p>Sunbeam Grillmaster HG850C Everything included for grilling and roasting, fish, chicken, steaks.</p> <p>\$388 MSRP \$624</p>	<p>3 day delivery \$58 S&H pay in 3 installments 0% interest 2 year warranty</p> <p style="text-align: right; font-size: 1.2em;">76</p>

• A summary "value score" can be displayed that summarizes relevancy. The value score is created by an algorithm that weights the buyer's utility function in a unique manner (via policy) and matches it against the market choices. The score serves as a recommendation. In this illustration, the sellers' offers are rank-ordered by Score and displayed in sequence. Notice that the fictitious company "e-home" seems to be the most relevant and delivers the highest value.

• The resulting recommendation can include side-by-side comparisons of features. In this illustration, the Recommender gave e-home the #1 position, with a value score of 91. Note that the bbq.com offer (lowest price in "my choices") dropped from #1 into the #2 position.

• An exclusion filter can also be applied to the database. The exclusion filter removes all offers which are non-qualifying for any number of reasons, some decided by the buyer, some decided by the "my choices" server. For illustration, a buyer may have had a bad experience with a vendor, or a rating service may have given an e-merchant a bad rating; or the e-merchant is known to be using misleading information in their offers.

• The buyer has an option - as she does on almost all screens - to cycle back to the beginning and re-order her priorities, run the "my choices" again, and see if the resulting evaluation and recommendation has changed in an interesting manner. In this manner, the buyer is simulating her utility function - trying out different combinations that intuitively match her mental image of what is important to her. In the beginning, gross adjustments of her priorities may produce gross changes in the value score. As she converges on her priorities, the adjustments are expected to become finer and the value score mores stable.

• Experienced buyers (within a particular category - not necessarily across all categories) could go straight from an "I want to" to an auction and bypass this step altogether.

• This framework for evaluation and recommendation is fully extensible. Additional evaluation criteria could be imposed from external sources. Multiple services can offer recommendations based on the same set of data. All of these features can be integrated into this framework.

FIG. 39

U800
"make me an offer!"

I want to...
learn
priorities
look only...
launch bot
my choices
make me an offer!
buy it now
condense

next
previous
site map

Hello. You only do this once, ever.

My name is

My secret password is

That's it. Have fun!

normal
advanced

make me an offer!

- When the buyer first comes to "twanto.com", she is welcomed to the service. When she is ready to ask for her first "make me an offer!", she is asked to fill out a simple registration, which is immediately confirmed by return email. There is no need to fill out her personal profile until she makes her first purchase.
- As new standards emerge of automating the registration process, this declaration might simplify down to just one input - a statement that says "join" or "register". Everything else would be supplied by the locally resident (i.e. browser-based, on the user's computer) or server-based (i.e. remote) database. Numerous standards are supported by the service, including but not limited to Open Profiling Standard (OPS), E-Commerce Markup Language (ECML), Platform for Privacy (P3P), Microsoft Passport, and ancillary services such as TrustE. For buyers who use such functionality, a single button push can upload all the data into the registration process - including the user's name and preferred (default) password.

FIG. 40

I want to...

- [learn](#)
- [priorities](#)
- [look only...](#)
- [launch bot](#)
- [my choices](#)
- [make me an offer](#)
- [buy it now](#)
- [condense](#)
- [next](#)
- [previous](#)
- [site map](#)

Limit the results to ...

✓ Top 3 bidders

Top 10 bidders

Top 100 bidders

All bidders

✓ Only bidders with scores over 90

normal

advanced

- Throughout the system, a buyer can specify her level of expertise (e.g., beginner, normal, advanced). Each delineation of expertise reveals or hides functionality.
- In this illustration, the buyer can ask to see all the results, or just a subset. She can delimit the search by total score (only scores over 90). For beginners, the limits can be set by the system as a default.
- As with the "look only" functionality before, this is a fully extensible framework. New delimiters can be introduced at any time.

FIG. 41

U900
adjusted offers auction result

0:59

These adjusted offers are "best and final". All adjusted offers expire in 48 hours - Wednesday November 25th, 10:30pm EST

Round 173444

	original offers	adjusted offers	
<div style="border: 1px solid black; padding: 5px; font-size: 0.8em;"> I want to... learn priorities look only... launch bot my choices make me an offer buy it now concierge need previous site map </div>	<div style="border: 1px solid black; padding: 5px;"> 1. backyard.com Sunbeam Grillmaster HQ850C Everything included for grilling and roasting, fish, chicken, steaks. 3 day delivery \$58 S&H pay in 3 installments 12% interest 2 year warranty \$388 MSRP \$624 </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> buy me! \$395 </div> <div style="display: flex; justify-content: space-between;"> talk to a rep <div style="text-align: right;"> 3 day delivery \$58 S&H pay in 6 installments no interest till 1/2000 2 year warranty • triple air miles </div> </div> </div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 10px auto;">96</div>	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border-left: 1px solid black; height: 100px; margin-right: 5px;"></div> <div style="font-size: 2em;">↑</div> </div>
<div style="border: 1px solid black; padding: 5px;"> 2. bbq.com Weber Genesis 1000 Many extras. Fully loaded. Needs some assembly. 12 day delivery \$30 S&H No financing 90 day Warranty buy 2, 30% off \$254 MSRP \$319 </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> buy me! \$264 </div> <div style="display: flex; justify-content: space-between;"> talk to a rep <div style="text-align: right;"> 3 day delivery \$40 S&H pay in 6 installments 12.8% interest 2 year warranty </div> </div> </div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 10px auto;">90</div>		
<div style="border: 1px solid black; padding: 5px;"> 3. e-home.com Ducane 1504SHLPE Full featured BBQ. 5 day delivery \$40 S&H pay in 6 installments 12.8% interest 1 yr. warranty \$454 MSRP \$684 </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> buy me! \$396 </div> <div style="display: flex; justify-content: space-between;"> talk to a rep <div style="text-align: right;"> 3 day delivery \$40 S&H No financing 120 day warranty Buy 2, 30% off </div> </div> </div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 10px auto;">87</div>		
<div style="border: 1px solid black; padding: 5px; display: inline-block;">adjust my priorities</div>		<div style="border: 1px solid black; padding: 5px; display: inline-block;">show me why</div>	

- The "make me an offer!" button triggers an auction. The buyer sees a seller's clock - the amount of time that a Round is held open for sellers to make adjustments. The service sets the clock for any interval, depending on the nature of the product or service being offered. The buyer is also given a certain amount of time to decide. The service (or in some cases, the sellers) can specify how long their adjusted offers will be valid depending on the product or service being offered. There can be various limits imposed on each Round by the service, e.g., the length of the period, how many times the buyer might want to launch, etc.
- In reality, the entire auction is taking place inside the iwanto.com servers. During the auction adjustment period (or Round), the buyer does nothing. The sellers' offers begin to adjust. Each adjusted offer element can be highlighted or animated. The sellers' offers can be submitted as one-time bids. They can be sealed to other sellers until they are all exposed at one time at the end of a round, painted onto the screen to create an entertaining effect.
- At the end of the bidding period, all offers are marked "best and final", whether they were adjusted (via affiliates) or not. During the offer adjustment period, the display shows the top offers, scored and rated. The buyer has the option of either moving to the next stage (a transaction), or re-setting her decision criteria (priorities) and launching another round of adjustments. In this illustration, based on the adjusted offers, backyard.com won the deal with a value score of 96.
- The "show me why" button leads to U1100, showing the buyer why a seller was recommended.
- The "talk to a rep" button enables the buyer to touch the screen and immediately be connected to a human sales representative. This allows the seller to close or upsell the buyer. The function is provided by the seller or by the seller's telemarketing agent. As human representatives are expensive, in this embodiment this functionality is optional- note that one of the sellers, bbq.com, does not support it.

FIG. 42

U910

"i always get something"

Round 173444

	original offers	adjusted offers
I want to... learn priorities look only... launch bot my choices make me an offer buy it now condense next previous site map	25. patioworld.com Sunbeam Grillmaster HG850C Everything included for grilling and roasting, fish, chicken, steaks. 3 day delivery \$58 S&H pay in 3 installments 12% interest 2 year warranty \$388 MSRP \$824	<div>buy me!</div> \$388. Premium package option - only \$36 (SRP \$72) <ul style="list-style-type: none"> • 1 day delivery no extra charge • 3.9% interest • no payments until \$2000 • 48 month extended warranty <div>90</div>

- The buyer's auction is most appealing when there are a large number of adjusted offers and when the buyer always gets something exceptional out of the experience. The buyer's experience is most satisfying when the buyer is assured of receiving something of value when she participates. iwanto.com already guarantees that the buyer receives value in market intelligence (e.g., Consumer Reports, research) and in "my choices" (all the posted offers). iwanto.com can further guarantee that the buyer receives a unique improvement over posted offers, in the form of iwanto-sponsored offers attached to posted offers.
- iwanto.com can guarantee that most or all offers will be adjusted by bundling several "premium" ancillary services into each offer: a) low interest and long no-payment period financing; (b) faster delivery methods for the same price; (c) longer extended warranty period for the same price; etc. These ancillary services can be purchased from competitive suppliers and private -labeled by iwanto.com. With sufficient scale and buying power, iwanto.com can purchase these ancillary services at near "most favored nation" cost, and provide them to the buyer at near-cost (or conceivably as a loss-leader). The net effect is that every offer - whether provided by an affiliate or not - can appear to the buyer to be an adjusted offer. The seller's posted offer remains unchanged, and a low cost "premium package" is added to the offer. Posted offers can thus become adjusted offers.
- In this illustration, patioworld.com is not an affiliated player and therefore does not have a bot making adjusted offers. iwanto.com has therefore supplied a "Premium Package" including delivery, financing and warranty. The manufacturer's suggested retail price (MSRP) of the premium package is twice the price being offered. The offer is attached to the product as if patioworld.com were making an adjusted offer. From the buyer's point of view, the single "i want" generated hundreds of adjusted offers in the auction.
- If an unaffiliated seller wins a round, iwanto.com can make an ad-hoc arrangement to collect the 2.5% success fee or offer the first customer as a bonus for affiliating.

FIG. 43

U1000

"buy it now" transaction

Round 173444

[I want to...](#)
[learn](#)
[preferences](#)
[look only...](#)
[launch bot](#)
[my choices](#)
[make me an offer!](#)
[buy it now](#)
[concierge](#)
[next](#)
[previous](#)
[site map](#)

To review your profile, touch ...

billing information

shipping information

it's ok

it's ok

Extras:

gift wrap?

no

notify when shipped?

yes

Product

Grillmaster

Seller

backyard.com

Price

\$395

Delivery

3 days

S&H

\$58

Financing

pay in 6 installments

no interest till 1/00

12.8% interest

Extended warranty

2 years

Air miles

triple

put in my shopping cart

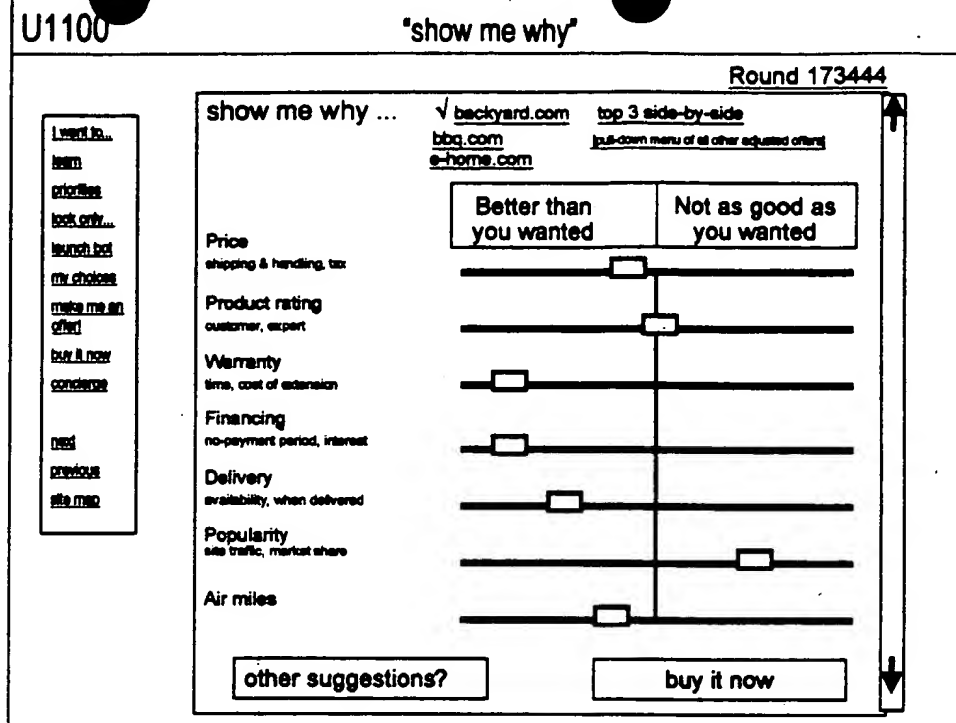
buy it now!

Done. All the purchase information has been entered into your Archive. Thank you!

- If this is the buyer's first transaction, she is asked to fill out her personal profile. In the preferred implementation, the buyer is already using one of the profiling utilities and can populate all of the required information with one touch of a button. In subsequent transactions, this information is stored for her convenience in the form of a "concierge". She can review and change it at any time.
- The service automatically populates all the necessary information, including the winning offer data. The buyer can edit anything inaccurate in her personal profile. The "buy it now!" button completes the transaction.
- iwanto.com verifies the billing and shipping data and forwards it to the seller for fulfillment. The seller can issue a tracking number, which is put into the buyer's archive.
- The buyer has a choice of consummating a transaction, or "passing". If the buyer wants to consummate a transaction, she can either do so in situ (within the service site), or exit the service site and go directly to the seller she chooses.
- If the buyer stays within the service site, she is presented with a universal shopping cart. Global personal data can negate the need for multiple registrations and data entry (e.g., credit card, address). All the features available for making the shopping experience simple are deployed here. As an extensible framework of transaction fulfillment, new features and functionality for consummating a transaction can be introduced at any time.
- iwanto.com executes the credit card transaction through the normal bank networks; gives buyer and seller the clearance number; and enters the data into the buyer's archive. The relevant data are passed to the seller in a secure transaction; electronic funds transfer follows. This back-end (discussed further in the seller's section) uses the best practices of business-to-business (B2B) software and services.

FIG. 44

44/60



- A buyer might be interested in understanding how a product or service was rated by the recommendation engine. By touching a "show me why" button, the buyer sees the underlying detail.
- The illustration above is one of many ways that the service can display analytic data to the buyer. The data are displayed in easy-to-understand fashion. The buyer's priorities are shown with the actual offer superimposed. The scale can become "better than you wanted" to "not as good as you wanted".
- The buyer can analyze any of the final adjusted offers. In this embodiment, the top three choices can be compared side-by-side (not shown).
- In this illustration, backyard.com did an excellent job responding to the buyer's priorities - especially in financing, warranty and air miles. The price goal was not met, but this seller won the deal. In other words, the buyer was upsold.

FIG. 45

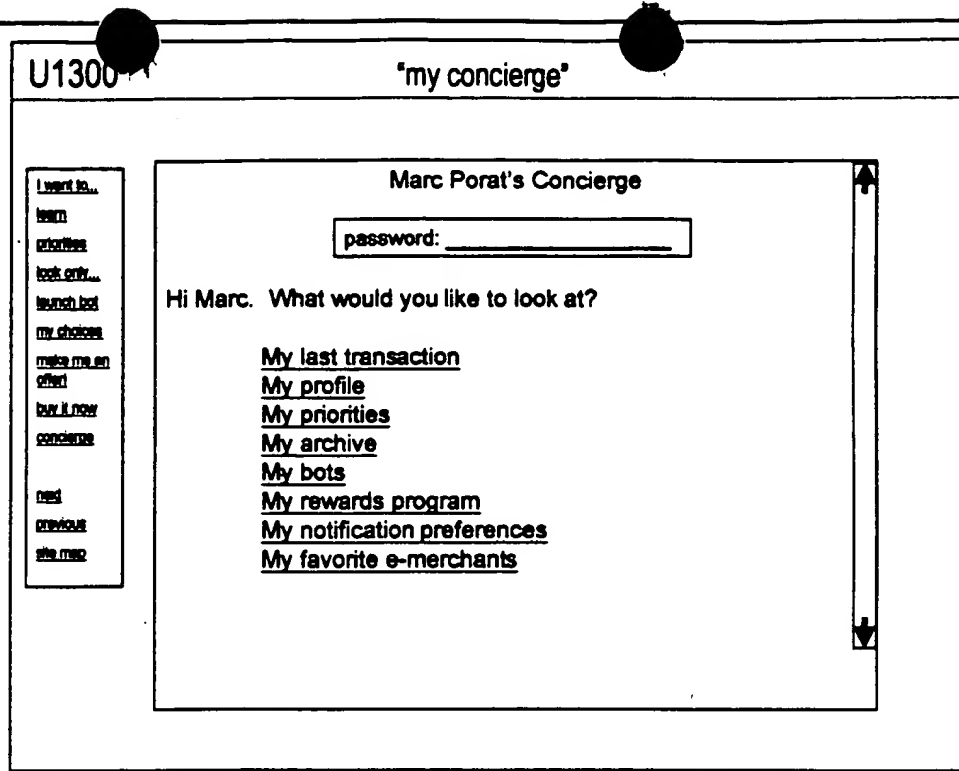
U1200

"make a suggestion"

I want to... learn priorities look only... launch bot my choices make me an offer buy it now concepts need product site map	<p style="text-align: center;">suggestions</p> <p>1. backyard.com</p> <p><u>Imperial</u> built-in BBQ. All stainless inside and out. Can be built into a stand-alone frame. \$1,995</p> <p>2. bbq.com</p> <p><u>Tailgater</u> grill. Perfect for taking to the ballpark. Propane gas tank. Can be hooked up to RVs. \$139</p> <p>3. e-home.com</p> <p><u>Snowbird</u> grill. For serious campers and backpackers. Lightweight aluminum, super-efficient burners. \$99</p>	<p style="text-align: center;">other suggestions</p> <p>Excellent steak deals from <u>Kansas Beef Company</u></p> <p><u>Shinkatsu</u> BBQ tool set Now being auctioned on <u>eBay</u></p> <p>Recipes and more from <u>Amazon.com</u></p>
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- This page presents another opportunity for sellers to "upsell" the buyer by suggesting not only accessories but also substitution products and services, complementary products and services – various forms of upgrades to the basic "i want". While the buyer is in a highly motivated and educated state, this is the ideal time for a seller to suggest upgrades.
- The service also has the ability to add various information, e.g., a suggestion module showing other recommended goods and service suggested by the buyer's peer group, various merchant and/or product evaluation content sources used by the service in rendering a rating, etc.
- This framework is fully extensible into many varieties of third party services, including: text chat, voice chat, expert chat, expert consulting, audio (e.g., voice over IP) customer service connection, video business-to-consumer (B2C) connection (see it), and access to sellers' promotional material, such as literature, simulations, visualizations, FAQs, etc.
- Ancillary services. Buyers are most satisfied when a large number of sellers offer adjusted "best and final" offers. The iwanto.com service can guarantee that a large number of adjusted offers result from every buyer's auction, whether the e-sellers are affiliated or not, by becoming a private label discount supplier of ancillary services such as: a) longer extended warranty; (b) lower interest and longer no-payment financing; (c) faster method delivery. These support services are ancillary to iwanto.com's core business model. With sufficient aggregated demand (via bulk purchase combined with purchasing power), iwanto.com can expect to procure ancillary services at near "most favored nation" rates - those given to the supplier's best customers - and pass those along to the buyer at near zero profit, and in some cases as a loss leader. As the iwanto.com services scales, it can begin to aggregate demand and make affiliation deals that enable the service to offer upgrades for the same price by building in a discount factor (i.e. the same as a large retailer would exercise volume purchasing power, except in this case the demand is based on an annualized flow of demand). In practice, the buyer's request, "make me an offer!", will result in a large number of offers - some will actually be adjusted by the seller's bot; others will be bundled offers that include iwanto.com's private label ancillary services.

FIG. 46



- The service maintains a record of all the "i want to" inquiries and the outcomes of the auctions. This automatically generated personal database - the Concierge - has multiple uses for the buyer, the seller and the system itself. The Concierge covers all relevant functions that are buyer-set, e.g., looking at her archive, profile, rewards program, bookmarks of favorite e-sellers etc. This data base is a valuable source of information to both buyers and sellers.
- The buyer's profile, priorities, archive, rewards program, notification preferences and favorite e-merchants all have economic value to sellers and can be auctioned to them in exchange for a consideration to the buyer (e.g., price rebates, price discounts, or loyalty program incentives). These elements can be fed into the buyer's business rules for making offer adjustments.
- The buyer has a choice of providing personal data to the sellers. If she wishes complete privacy, none of her personal data will be forwarded with the request for an offer. Alternately, the buyer can receive various forms of credit for providing her personal data. One method is by awarding her frequent flyer points that can be redeemed at any major airline. She can implement that choice by using a simple UI element.
- The Concierge is also useful as a personal repository for many purposes, especially post-sale activities, e.g., returns, warranty claims, customer service, financing renewal (review of terms) etc.
- The Concierge is an extensible framework. As new applications become desirable, they can be implemented into the Concierge. A personal finance illustration might include a budgeting program, a bill presentment and electronic payment program, a tax program etc. The Concierge is also a logical place from which to create, launch and manage automated buyer's bots.

FIG. 47

U1310

"my archive"

[I want to...](#)
[learn](#)
[priorities](#)[look only...](#)[launch bot](#)[my choices](#)[make me an](#)[offer](#)[buy it now](#)[concierge](#)[next](#)[previous](#)[site map](#)

my archive - click for details

1/15/99	Women's slide, shape style ...	purchased	\$450	shipped 1/16/99
2/14/99	Mortgage refinace	\$180,000 ...		
3/1/99	S&B in Val ...	purchased	\$1,100	confirmed 3/1/99
4/11/99	Fragrance ...	purchased		back ordered
4/11/99	Epson printer supplies ...	purchased	\$29	shipped 4/13/99
5/4/99	Mexico cruise	-		
5/5/99	Book	purchased	\$14	shipped 5/5/99
5/5/99	CD	purchased	\$11	shipped 5/5/99
5/5/99	Books	purchased	\$36	back ordered
6/23/99	Flowers	purchased	\$58	shipped 6/23/99
7/21/99	Auto financing -			

[more archive](#)[print a report](#)

- The Archive is a record of all purchases. This is a useful database. The buyer can refer back for further information, reminders etc.
- The Archive contains data not only on consummated transactions but also on transactions not consummated. For illustration, the buyer may have come close to a decision and then stopped, wishing to cycle back, do more research and learning, change her priorities, and then re-enter the market. The Archive gives the buyer a snapshot of where she left the process, and can resume the buyer's auction without having to start from the beginning.
- In the case of subscriptions (e.g., magazines) and evergreen contracts (e.g., cable television), the concierge can remind the buyer or perform automatic functions, such as cancellation, renewal or suggestion of a rebid.

FIG. 48

U1329

"my rewards program"

I want to...

[learn](#)

[priorities](#)

[look only...](#)

[launch bid](#)

[my choices](#)

[make me an offer](#)

[buy it now](#)

[condense](#)

[need](#)

[previous](#)

[site map](#)

my rewards program - click for details

Air miles awarded to date	78,500
Bonus air miles (promotions)	28,700
Total air miles available	107,200

100K miles Special Offer
United Airlines
 trip for two to Maui
 with car and hotel
 for 5 nights!
[Click for details](#)

100K miles Special Offer
American Airlines
 Beijing, Tokyo
 10 days
 round trip from San Francisco
[Click for details](#)

[1998 archive](#)[print a report](#)

• iwanto.com supports a "my rewards" loyalty and related incentives programs, which can be in affiliation with an airline or credit card or incentives management entity. The points are earned in various ways: a) standard \$1 purchased = one point; b) bonus points provided by sellers for special promotions (sales) or in exchange for private information, e.g., profiles; c) bonus points provided by iwanto.com as a promotion, or in conjunction with an incentives program; or some combination, e.g., a joint promotion between iwanto.com and a vendor.

• The buyer can state an "i want" to use up her points, with requests for offers (RFOs) that are conceptually and technically the same as the basic invention. For illustration, the buyer might launch "i want to redeem 100,000 miles for airline travel to Hawaii or somewhere in the Far East." Such an RFO could elicit the bids shown above.

• The rewards program is an open-ended framework - it can use dollars, air miles, coupons or any other valuable consideration.

FIG. 49

- The Affiliation agreement is done on-line. The auction rules are explicit and agreed to by all players. The service needs: a) signed affiliation agreement; b) billing agreement; and c) cognizant officer (or proprietor)
- Affiliation can be implemented at several levels. For example, a simple embodiment can have two levels: (1) Gold - full affiliation status, i.e., the ability to make adjusted offers inside the auction plus access to proprietary data; and (2) Silver - subscription to non-proprietary data only. It is possible that affiliation levels below Gold will also be allowed to make adjusted offers. Alternately, only the top level (Gold) can be a "player" and make adjusted offers.
- The auction rules are a framework that enables the iwanto.com service to set explicit policies and processes for how the auction runs, and enables the service to change those rules from time to time - either globally (for all auctions), or for one specific auction (e.g., at a buyer's request for a customized set of auction parameters). Illustrations include the length of the auction period(s); the number of auction period(s) before all adjustments cease; whether offers are closed bid until the end of the period; the length of time that adjusted offers are required to stay binding on the seller and hence the length of time that the buyer has to accept an offer before it is extinguished; the ability for the seller to insert human intervention into the offer adjustment process; the possibility of a "tie" in a recommendation value score; whether each score in a subsequent period has to be equal to or greater than the previous value score or whether the score is allowed to float downward; etc. These auction rule agreements are binding on all sellers.
- The adherence to a privacy policy is part of the affiliation process. The iwanto service can implement a simple or complex set of processes behind this agreement. Some of the procedures can be internal to iwanto.com. Others can involve third party custodians of data or data integrity assurance, e.g., Price Waterhouse Coopers, TrustE, etc.
- The standard navigation bar (vertical, left element) includes short-cuts for the seller.
- In this illustration, the seller selected "gold" affiliate level, entitling him to participate in all the rounds and to receive the full suite of "market watch" information products. By touching "Affiliate fees", the seller is taken directly to U2100.

FIG. 50

		success fee	"market watch" data mine subscription
<div> Affiliate Products Rules Archive Round # Purchases Analysis next previous site map </div>	Gold	2.5%	10¢ ✓ Proprietary data (see list next page) ✓ Non-proprietary data (see list next page)
	Silver	2.5%	5¢ ✓ Non-proprietary data (see list next page)
		Accept	
		Accept	
		details of subscription packages	

- The fee structure is part of the Affiliation agreement. In this illustration, all sellers pay a success fee of 2.5% of the final product price if they win the bid. Gold affiliates have the right but not the obligation to make adjusted offers. Silver affiliates cannot make adjusted offers. In alternative implementations, all sellers might be able to make adjusted offers as long as they are affiliated and thereby pay a success fee. The service might also find it advantageous to set the success fee differently for different products or services, depending on their value; the range of these success fees could be from zero to any percentage agreed to by the sellers.
- In this illustration, Gold affiliates pay 10¢ per round and receive the entire suite of proprietary "market watch" information. This information contains both publicly available data plus proprietary data that gives details on who bid in the auction, what adjusted offers were made, who won, who lost, and why.
- In this illustration, Silver affiliates pay 5¢ per round to receive the non-proprietary subset of "market watch" information. This non-proprietary information is publicly available but can only be gathered with great effort by the seller. The value of the Silver subscription is instantaneous delivery of relevant information, packaged and aggregated.
- The information products can also be unbundled and priced separately.

FIG. 51

U2200

subscription products

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Silver
(non-proprietary)

[buyer's "i want"](#)
[buyer's "look" constraints](#)
[buyer's anonymous profile](#)
[buyer's lifetime value](#)
[buyer's "priorities"](#)
["my choices" result](#)
[Acxiom or Engage data](#)
[Consumer Reports data](#)

Gold
(proprietary)

[buyer's archive](#)
[auction participants](#)
[auction adjusted offers](#)
[system recommendation](#)
[auction result](#)
[post-auction analysis](#)

- The various proprietary and non-proprietary "market watch" information product subscriptions can be specified using this panel.
- Gold affiliates receive all the information products shown above (the superset). The proprietary information cannot be acquired anywhere else because it is a direct result of the auction process and only occurs within the iwanto.com site at the time of auction.
- Silver affiliates receive only the non-proprietary information products listed above. This is information that can be acquired by the seller from sources other than iwanto.com.
- By touching one of the information products, a seller is transported immediately to that information module, e.g., to the post-auction analysis.
- To price discriminate, the information bundles can be arbitrarily fine-grained and priced differently. The service can support many unique information bundles or packages.
- As shown above with the Acxiom, Engage and Consumer Reports illustrations, the iwanto.com service can also act as a reseller of third party data sources.
- The inventory changes as the service adds new information products. This basic data mining aspect of iwanto is an important aspect of its business (revenue) model.

FIG. 52

U2300

seller's business rules

Affiliate Products Rules Archives Round # Purchases Analysis next previous site map		max adjustment	match or beat
	Price	10%	bbq.com
	Standard shipping & handling		e-home
	1 day	5%	
	3 day	10%	
	5 day	20%	
	Tax	0%	
	Warranty		
	Extended warranty (time)	50%	bbq.com
	Extended warranty (cost)	33%	bbq.com
	Financing		
	Months before payment	80%	e-home
	Interest rate	40%	e-home
	Rewards program points	200%	bbq.com
	global setting	for this round only	use auto-recommendation

• One of the first actions of a Gold (or offer-adjusting) affiliate is to set his business rules. Both affiliated and unaffiliated sellers' business rules are set to zero at the beginning. By giving all sellers a simple business rules template pre-set to zero, the iwanto service can incorporate all of them into the auction adjustment process without waiting for a positive (i.e. non zero) setting. In the degenerate case, the seller's posted offer will equal his adjusted offer, and both would be deemed "best and final" and so marked on the user interface. The seller can set his rules in numerous ways, including, without limitation: a) via a global setting - set once for all rounds, irrespective of the buyer's profile; b) for this round only - upon seller's analysis of the buyer and the market, or c) by using auto-recommendation - the iwanto recommender engine can supply a default set of business rules that will match or beat the competition and get the deal. Most sellers (small businesses) can set their business rules by using the template bot supplied by iwanto.com. The business rules template illustrated above presents a simple model to the seller. The simple business rules client will be posted in source code form on the web. Sellers can use and modify the code for free. Sophisticated sellers can drive this template using their own proprietary business rules model. Their confidential business information drives the rules, e.g., competitive data, current cost of capital, inventory levels etc. More sophisticated sellers can drive the iwanto.com template bot via their own proprietary business rules engines. The preferred embodiment accommodates external "drivers" of the many popular business rules engines, e.g., as provided by Oracle, Sybase, SAP, PeopleSoft etc. As the business-to-business (B2B) industry develops new business rule drivers, the iwanto.com platform can accommodate them via APIs supplied by the vendor. The seller can set his business rules numerically (as shown) or by attaching each parameter to a named competitor. This creates a dynamic where certain sellers become price leaders (setters) or terms-of-offer setters. It allows companies to compete with each other with pinpoint accuracy.

• The business rules template is a framework that is extensible. New categories of sellers' rules can be added to the template either by the iwanto.com service (open) or suggested by the seller. For the business rules template to have beneficial effect, there needs to be agreement between the seller, the buyer and the iwanto service about the template elements. Hence, to ensure consistency, the iwanto service can act as custodian of the business rules templates semantics, e.g., the meaning of the term "extended warranty" or "zero-payment period". As other entities - e.g., Ariba, Commerce One - create standards for business-to-business (B2B) commerce, iwanto.com can readily adapt them into this framework.

FIG. 53

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Rewards program points per \$

Standard:	1 point	(a)
✓ Bonus points	3 points	(a)
✓ Bonus points for ID:	2 points	(b)

-
- (a) paid only by winning bidder
 (b) paid for buyer's ID, losing bidders

• Sellers set up their loyalty program default policy. In most cases, buyers will expect a 1 point per \$1 offer from the winning bidder. In this illustration, the seller has made an offer to pay three points if he wins the deal - that information is fed into the evaluation and recommendation, and may have greater or lesser impact depending on the buyer's priorities. Sellers willing to give more bonus points are more likely to get the deal.

• The "bonus points for ID" is an inducement to the buyer to reveal her name and address before or after the transaction. Obviously the bidding seller who won will know the buyer's identity post-transaction so that the product can be shipped. However, the losing might find the buyer's identity extremely valuable, e.g., for 1:1 marketing and other solicitations.

• The buyer's identity has tangible market value. Whereas anonymous data (e.g., Acxiom) can be readily provided to the sellers, tying it to an actual name and address and email is a much more valuable proposition. This value belongs to the buyer - not to iwanto.com. If the buyer so wishes, her identity itself can be subject to a seller's auction. Here, iwanto.com can provide a powerful data mine for the seller. As the iwanto.com service is based entirely on "permission marketing", it is up to the buyer, in her discretion, whether she wishes to accept an inducement to reveal her identity to the sellers who bid but lost the round. In this illustration, the seller indicates that he is willing to pay 2 points per \$1 of value directly to the buyer - even if he lost the round.

FIG. 54

U3000

buyer's original "i want"

Round 173444

I want to ...

look ...

buy a BBQ grill

 local within ____ miles
☒ USA only
☐ Whole world

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Priority

very
importantnot
important

Total Price (shipping, handling, tax)

Evaluations (customer, expert)

Warranty (& extension)

Financing (no-payment period, interest)

Delivery (availability, speed)

Popularity (site traffic, market share)

Air miles

- All the information necessary to conduct an auction is inside the iwanto.com servers in the form of a database. However, if the seller wishes to see reports of what is going on in each round (in real time or historical archive), a report is generated. The illustration above shows that the seller sees the buyer's RFO (request for an offer); the "look" constrained search delimiters; and the buyer's utility function (priorities). The buyer's identity is not revealed - she is anonymous.
- The seller can manipulate the "my priorities" data using their own models of buyer behavior and market segmentation.

FIG. 55

Affiliate	buyer value	anonymous profile	archive
Products			Women's skin, shape style ...
Rules	Last 90 days \$0	gender F	Mortgage refi \$180,000 ...
Archive	Last 180 days \$580	age 35	B&B in Vail ...
Round #	Last 1 year \$1,145	marital married	Fragrance ...
Purchases	Last 3 years \$21,480	income \$58K	Epson printer supplies ...
Anchors	Lifetime value \$145,977	home Condo	Mexico cruise
		children 1	Book
		auto 98 Audi	CD
		credit rating AAA	Book
		education 18 yrs	Flowers
		zip code 94022	Auto financing
		Tel. prefix 650-917	
		ISP AOL	
		credit card MC, Visa	
next			
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Legal notice: this strictly confidential information is provided by buyer exclusively for use in this market Round. Redistribution or other use is prohibited. Violation of the Affiliate agreement is punishable by a fine

- Depending on the type of affiliation and the buyer's permission, the seller can see the Buyer's anonymous profile and history. Other data provided to the Gold affiliate seller can include historical and future value of the customer; anonymous demographic data; and an archival history of "iwanto" inquiries. This data mine should increase the seller's chances of winning the business with an optimal offer.

FIG. 56

U3200

"my choices" result

Round 173444

Affiliates Products Rules Archive Round # Purchases Analysis next previous site map	1. bbq.com <input type="button" value="chat"/> Closeouts, over-stocks, many items from around the world	Weber Genesis 1000 Many extras. Fully loaded. Needs some assembly. \$254 MSRP \$319	<i>product thumbnail</i>	12 day delivery \$30 S&H No financing . 90 day Warranty buy 2, 30% off
	2. e-home.com <input type="button" value="chat"/> We stock 4,800 models for men & women from 120 companies	Ducane 1504SHLPE Full featured BBQ. \$454 MSRP \$684	<i>product thumbnail</i>	5 day delivery \$40 S&H pay in 6 installments 12.8% interest 1 yr. warranty
	3. backyard.com <input type="button" value="chat"/> The largest wholesaler of toys. We specialize in imports from ...	Sunbeam Grillmaster HG850C Everything included for grilling and roasting, fish, chicken, steaks. \$388 MSRP \$624	<i>product thumbnail</i>	3 day delivery \$58 S&H pay in 3 installments 12% interest 2 year warranty

- The seller sees the result of "my choices". Here is a case where the seller can laboriously search the web for posted offers and discover the same information as presented above. The iwanto.com service value add is to package the correct information at the right time (pre-auction) in the proper form (electronic) such that the seller's bot can take action on it and make an adjusted offer.

FIG. 57

U3400

"adjusted offer" auction results

0:59

These adjusted offers are "best and final". All adjusted offers expire in 48 hours - Wednesday November 25th, 10:30pm EST

Round 173444

	original offers		adjusted offers	
Affiliate Products Rules Archive Round # Purchases Analysis new previous site map	1. backyard.com Sunbeam Grillmaster HG850C Everything included for grilling and roasting, fish, chicken, steaks.	3 day delivery \$58 S&H pay in 3 installments 12% interest 2 year warranty \$388 MSRP \$624	<div>buy me!</div> <div>talk to a rep</div> \$395 3 day delivery \$58 S&H pay in 6 installments no interest till 1/2000 2 year warranty - triple air miles	96
	2. bbq.com Weber Genesis 1000 Many extras. Fully loaded. Needs some assembly.	12 day delivery \$30 S&H No financing 90 day Warranty buy 2, 30% off \$254 MSRP \$319	<div>buy me!</div> \$284 -3 day delivery \$40 S&H pay in 6 installments 12.5% interest 2 year warranty	90
	3. e-home.com Ducane 1504SHLPE Full featured BBQ.	5 day delivery \$40 S&H pay in 6 installments 12.5% interest 1 yr. warranty \$454 MSRP \$684	<div>buy me!</div> <div>talk to a rep</div> \$396 3 day delivery \$40 S&H No financing 120 day warranty Buy 2, 30% off	87

FIG. 58

U3500 transaction

Round 173444

Affiliate

Products

Rules

Archive

Round #

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site map

ship to:

customer #7,287,932

unchanged

billing information

unchanged

shipping information

unchanged

Seller

backyard.com

Round

173444

Product

Sunbeam Grillmaster HG650C

Price

\$388

Delivery

3 days

S&H

\$58

Financing

pay in 6 installments

no interest till 1/2000

12.8% interest

Extended warranty

2 years

Air miles

3X

purchased at 1425 PDT

funds transfer tonight

- the seller's affiliation agreement states whether the buyer can do the transaction in situ, or whether the buyer is required to come to the seller's site. The advantages to the buyer of staying in situ are: a) the buyer can stay within one unified environment without going through the resistance barrier of suddenly being in a different environment, with a different UI and additional hurdles such as a re-registration burden; b) the iwanto.com service can aggregate loyalty program points across a number of e-sellers; and c) all the data generated by the transaction are integrated into the concierge for archival uses without any additional effort by the buyer.
- The advantages to the buyer of going to the seller's site are: a) trust (e.g., if a strong brand like Amazon); b) familiarity; and c) integration into the seller's loyalty program.
- In this case, the buyer decided to stay inside iwanto.com service. She approved identifying her by name and address in exchange for air mile points. All the credit card transactions flow directly from iwanto.com's accounts via EFTS into backyard.com's account.

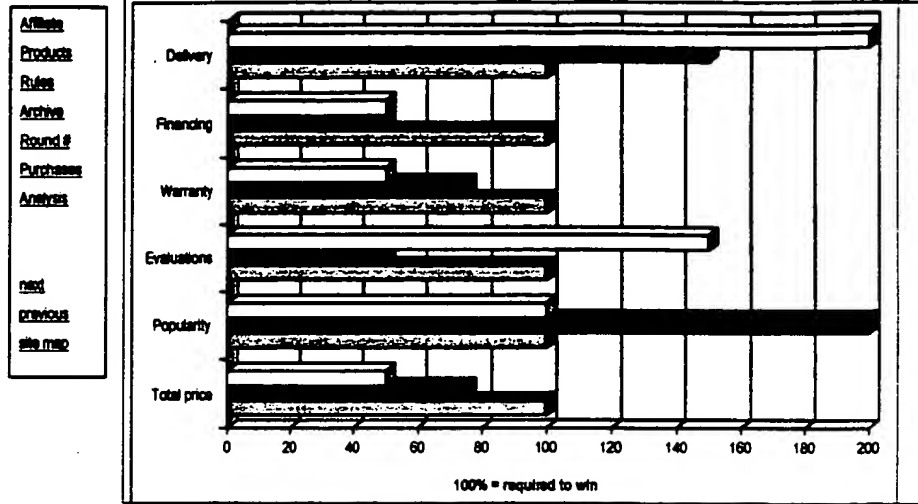
FIG. 59

U3600

"auction analysis"

#1 backyard.com
 #2 bbq.com
 #3 e-home.com

Round 173444 only
 All rounds in this category
 in the past 10 days



- In this illustration, only Gold affiliates see this information. The seller sees exactly who won the Round, and why. Various formats can be used for reporting the results of an auction. The results can be reported on a single auction, or they can be aggregated for a set of auctions.
- The service can provide an analysis of each round, or summaries of a large number of rounds. These analytic tools and summaries help the seller analyze how to segment the market and win more rounds. They are constrained optimization problem solvers.
- In this illustration, the winner's offer - backyard.com -- is shown at 100%. By definition, this offer won the bid. The other sellers' offers (displayed according to the template with each term analyzed separately) reveals information about the bids. For illustration, e-home.com can conclude the following: its product had strong third party evaluation and excellent delivery; however the company fell short on warranty (too short), financing (not enough free period) and price (too expensive). The other losing bidder, bbq.com had a different experience. The site is extremely popular and has great delivery time. But it also underachieved on warranty and financing.
- This ex-post evaluation framework is extensible in many ways. The actual methods of analysis can be varied. Either iwanto.com or third party companies can create a side business offering analysis of auction results, and sell the analyses as a consulting or subscription service. Also, the reporting formats can vary from that illustrated above. Sophisticated sellers can simply buy the raw data and analyze it themselves.

FIG. 60